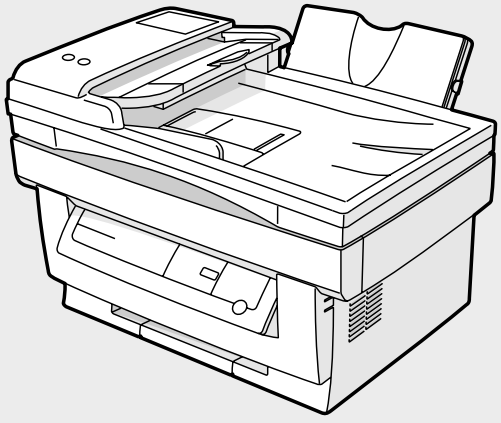
SHARP®

FO-3800M

DIGITAL LASER MULTIFUNCTION

OPERATION MANUAL



This product contains a lithium-ion battery, and must be disposed of properly. Contact your local environmental officials for disposal instructions.

In some areas, the "POWER" switch positions are marked "I" and "0" on the copier instead of "ON" and "OFF".

CAUTION:

For a complete electrical disconnection, pull out the main plug.

The socket-outlet shall be installed near the equipment and shall be easily accessible.

Important safety information

- If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm to the telephone network.
- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use a telephone to report a gas leak in the vicinity of the leak.
- Do not install or use the machine near water, or when you are wet. Take care not to spill any liquids on the machine.

DECLARATION

The equipment has been approved in accordance with Council Decision 98/482/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

In the event of problems, you should contact your equipment supplier in the first instance.

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1. INSTALLATION

Introduction

Congratulations on your purchase of the FO-3800M, and thank you for choosing SHARP!

Overview of the FO-3800M

Your new multifunction peripheral (MFP) is a 4-in-1 compact, multifunctional device that serves as a standalone fax, a standalone copier, a laser printer, and a scanner. In addition to a full range of fax functions designed to increase the scope and power of your communications, your new machine features fast, high-quality printing, scanning, and copying capabilities. It is fitted with a full 2 megabytes of memory to boost overall performance. Its dual access capability allows to functions to be used simultaneously, maximizing its potential as an office tool. Some of the other features of this product include :

Printer
- High-quality 600-dpi resolution and fast 8 ppm laser printing to handle simple and complex printing needs
- Microsoft Windows® Printing System for high reliability and ease of use

Fax
- Fast 8-ppm scanning increase job efficiency

Scanner
- TWAIN compatibility allows work with various applications

Copier
- Fast, quality copies at 600-dpi resolution

Important :
This machine is not designed for use on a line with call waiting, call forwarding, and certain other special services offered by your telephone company. If you attempt to use the machine in conjunction with one of these services, you may experience errors during transmission and reception of facsimile messages.

How to use this manual

This manual provides information for the set up and operation of your new machine. It is designed to help you master the many innovative features of the machine in the least amount of time.
Chapters 1 to 5 cover the copier functions. Chapters 6 to 9 describe how to use the fax functions. Chapter 10 to 13 explain the functions of the printer and scanner parts. At the end, you will find the specifications of the machine and a handy glossary.

Note : *Although this machine may be used with the Windows® 3.1 Windows® for Workgroups 3.1x, Windows®95, Windows®98 and Windows NT 4.0 operating systems, the screen shots used as examples in this manual were all taken in a Windows®95 environment, except where noted.*

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1

Conventions used in this manual

In this manual, the following icons are used to provide the user with information pertinent to the use of the machine.

Warning

Warns the user that injury to the user or damage to the copier may result if the contents of the warning are not properly followed.

Caution

Cautions the user that damage to the copier or one of its components may result if the contents of the caution are not properly followed.

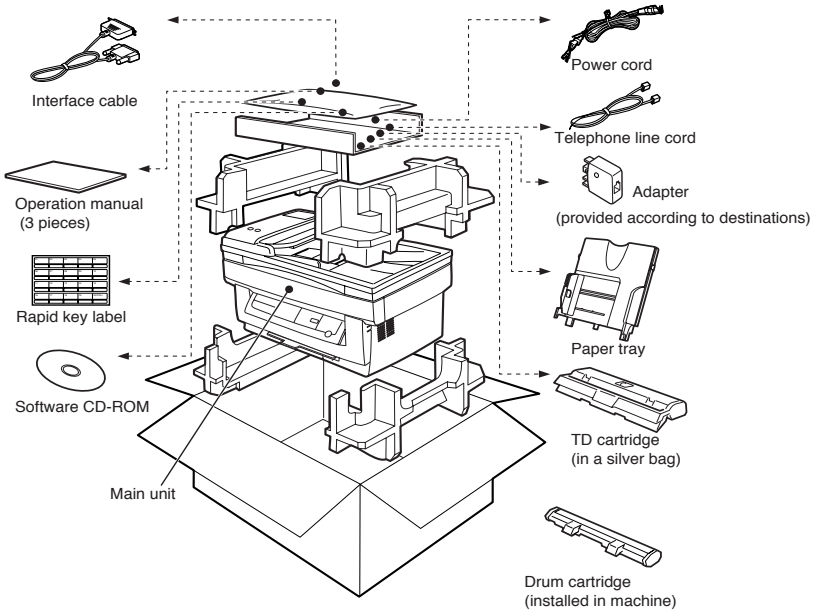
Note

Notes provide information relevant to the copier regarding specifications, functions, performance, operation and such, that may be useful to the user.

Indicates a letter displayed in the display.

Checking packed components and accessories

Open the carton and check to ensure that the following components and accessories are included.



The life of the TD cartridge which has been included in the machine at the factory is approximately 1500 sheets (A4 size paper at 5% toned area). In some regions, the shape and type of the packing materials are different from those shown above.

If anything is not included or is damaged, contact your Sharp dealer. Save the carton and packing materials. These can be re-used for transporting the machine, should it be necessary.

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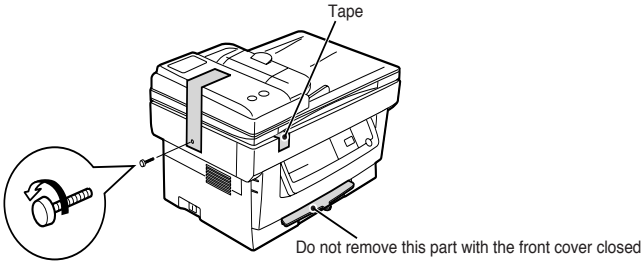
Set up

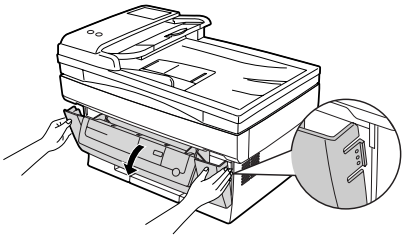
1 Remove the screw from the left side of the copier by rotating it in the direction indicated by the arrow.

Save the screw because it will be used if the copier has to be moved (p. 132). Store the screw inside the front cover.

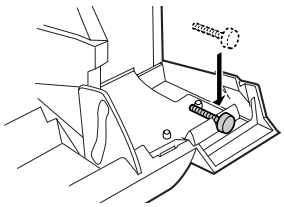


2 Remove the tpa and the protective paper on the original table.

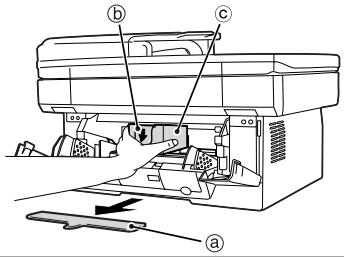
3 Push gently on both sides of the front cover to open the cover.



4 Store the screw which has been removed in step 1 at the right side inside the front cover.



5 After removing protecting material ⓐ, gently pull black protective paper ⓑ and protective material ⓒ together to your side and remove them. Be careful not to tear the protective paper during removal.



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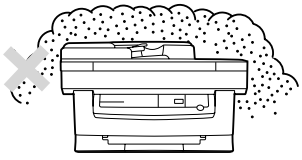
Choosing a location

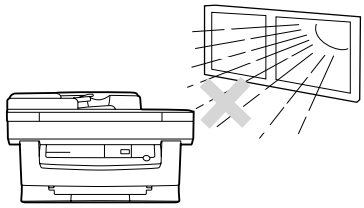
1

All electrical equipment is potentially dangerous if not installed and operated correctly. Make sure that you meet the following requirements when you set up or move the machine.

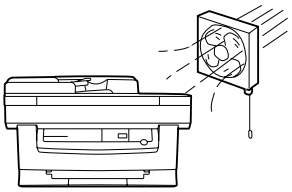
- The machine must be installed on a level surface.
- Use only the rated voltage from a properly grounded wall socket.
- Keep the machine away from areas that are:
  - Dusty or smoky, damp or humid



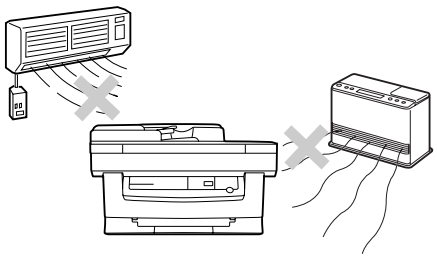
  - On direct sunlight



  - Poorly ventiated



  - Subject to extreme temperature or humidity changes, e.g., near an air conditioneror heater



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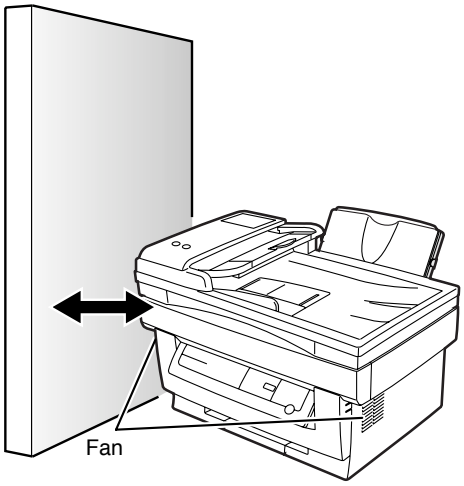
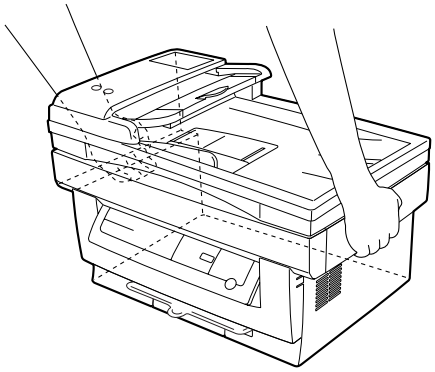
- Provide ample room for easy access to the front, back, and sides of the machine.
- Leave enough space around the ventilation outlets for heat from the fan to dissipate properly. Blocking these outlets could cause the machine to overheat, which can cause serious damage to the internal parts.
- Use of extension cords is not recommended.



If the machine is moved from a cool place to a warm place, condensation may form inside the machine. Operation in this condition will cause poor copy quality and malfunctions. Leave the machine at room temperature for at least 2 hours before use.

When moving the machine, hold iton both sides as shown below.



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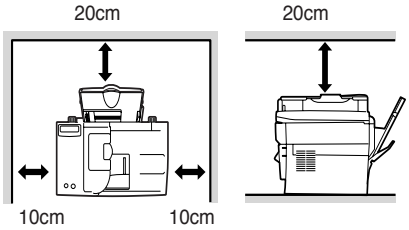
1

Be sure to allow the required space aroundthe machine for servicing and proper ventilation.



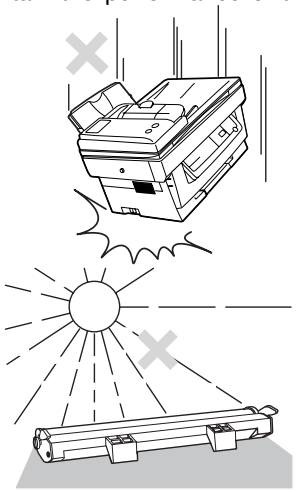
A small amount of ozone is produced within the machine during operation. The emission level is insufficient to cause any health hazard.

NOTE :
The present recommended long term exposure limit for ozone is 0.2 mg/m^3 calculated as an 8 hr. time-weighted average concentration.
However, since the small amount that is emitted may have an objectionable odor, it is advisable to place the machine in a ventilated area.

Cautions

Be careful on handling the machine as follow to maintain the performance of this machine.

Do not drop the machine, subject it to shockor strike it against any object.



Do not expose the drum cartridge to direct sunlight.
Doing so will damage the surface (green portion) of the drum cartridge, causing smudges on copies.

Store spare supplies such as drum cartridges and TD cartridges in a dark place without removing from the package before use.
If they are exposed to direct sunlight, smudges on copies may result.

Do not touch directly the surface (green portion) of the drum catridge with a hand.
Doing so will damage the surface of the cartridge, causing smudges on copies.

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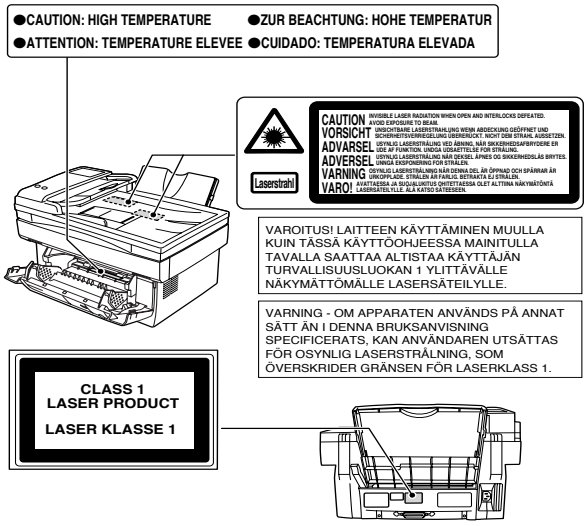
- The fusing area is hot. Exercise care in this area when removing misfed paper.
- Do not switch the machine rapidly on and off. After turning the machine off, wait 10 to 15 second before turning it back on.
- Do not look directly at the light source. Doing so may damage your eyes.

- Place the machine on a firm, level surface.
- Do not install the machine in a humid or dusty location.
- When the machine is not used for a long time, for example for consecutive holidays, turn the power switch off and remove the power cord from the outlet.
- When moving the machine be sure to turn the power switch off and remove the power cord from the outlet.
- Do not cover the machine with a dust cover, cloth or plastic film while the power is on. Doing so may prevent heat radiation, damaging the machine.

Class 1 Laser product
Invisible laser radiation when open and interlocks defeated. Avoid exposure to beam. At the production line, the output power of the scanner unit is adjusted to 0.6 MILLIWATT PLUS 13.4 PCTS and is maintained constant by the operation of the Automatic Power Control (APC).
This product contains a low power laser device. To ensure continued safety do not remove any cover or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.


●CAUTION: HIGH TEMPERATURE
●ZUR BEACHTUNG: HOHE TEMPERATUR
●ATTENTION: TEMPERATURE ELEVEE
●CUIDADO: TEMPERATURA ELEVADA
CAUTION
VORSICHT
ADVARSEL
ADVERSEL
VARNING
VARO!
Laserstrahl
VAROITUS! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.
VARNING - OM APPARATEN ANVÄNDS PÅ ANNAT SÄTT ÄN I DENNA BRUKSANVISNING SPECIFICERATS, KAN ANVÄNDAREN UTSÄTTAS FÖR OSYNLIG LASERSTRÅLNING, SOM ÖVERSKRIDER GRÄNSEN FÖR LASERKLASS 1.
CLASS 1
LASER PRODUCT
LASER KLASSE 1

Caution
This product contains a low power laser device. To ensure continued safety do not remove any cover or attempt to gain access to the inside of product. Refer all servicing to qualified personnel.

Wave length	785 nm ± 15 nm
Pulse times	(13,98 ± 2 µs)/7 mm
Output power	0,40 mW ± 0,05 mW

Use of controls or adjustments or performance of procedures other than those specified hereinmay result in hazardous radiation exposure.

Main features

1

① **High-speed laser copying**
- Since warm-up time is zero, copying can be started immediately after the power switch is turned on.
- First-copy time is only 11 seconds (normal mode).
- Copying speed is 8 copies/min., which improves working efficiency.

② **Digital high-quality image**
- High-quality image copying with 600 dpi can be performed.
- In addition to the automatic exposure mode, the manual exposure can be adjusted in five steps.
- The photo mode copying function which allows clear copying of delicate halftone original images such as monochrome photos and color photos can be used.

③ **Substantial copying functions**
- Zoom copying from 50% to 200% in 1% increments can be performed.
- Continuous copying of maximum 50 sheets can also be performed.
- Automatic document feeding through the single pass feeder (SPF) can be performed.
- Toner save mode for reducing toner consumption by approximately 10% can be set.
- User programs which allow setting/modification of functions for customer's needs are provided.

④ **Scan once/Print many**
- The copier is equipped with a 1-page memory buffer. This memory allows the copier to scan an original 1 time only and make up to 50 copies. This feature allows for improved workflow, reduced operating noise from the copier and reduced wear and tear on the scanning mechanism. This feature provides for a higher reliability.

⑤ **Printer/Scanner/Facsimile features**
- This machine also has laser printer, scanner and facsimile functions.

⑥ **250-sheet paper tray**
- The paper tray holds up to 250 sheets of copy paper (56 to 80g/m^2). The capacity adapts to office use allowing high-volume printing and saving labor for loading paper.

⑦ **Environmentally friendly design**
- Paper output tray can be pushed into the copier for space saving when copying is not performed.
- Preheat mode and auto power shut-off mode are procided to reduce power consumption when the machine is not in use.

As an ENERGY STAR® Partner, SHARP has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

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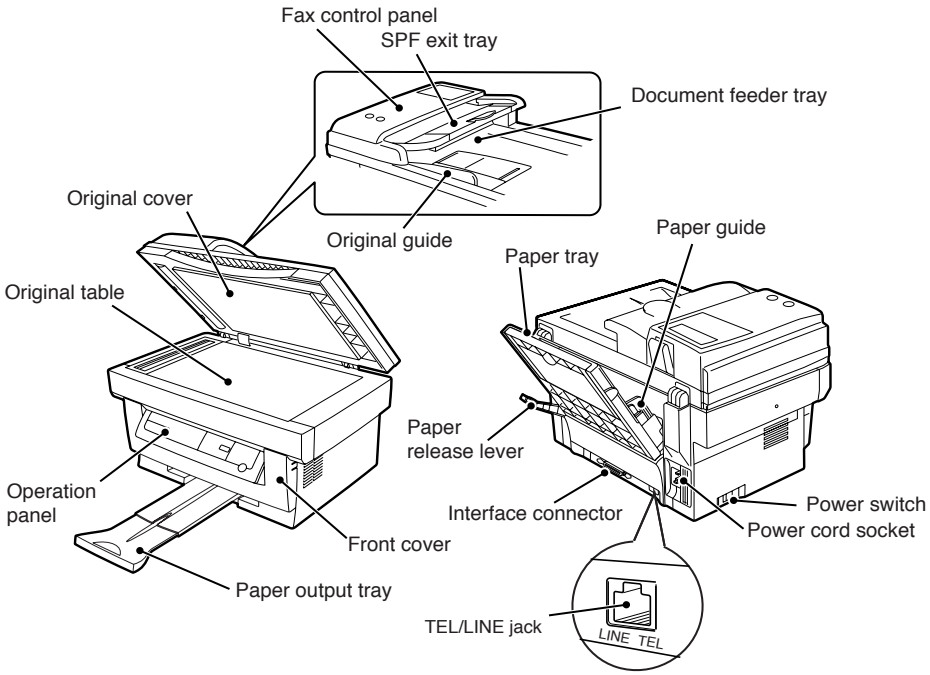
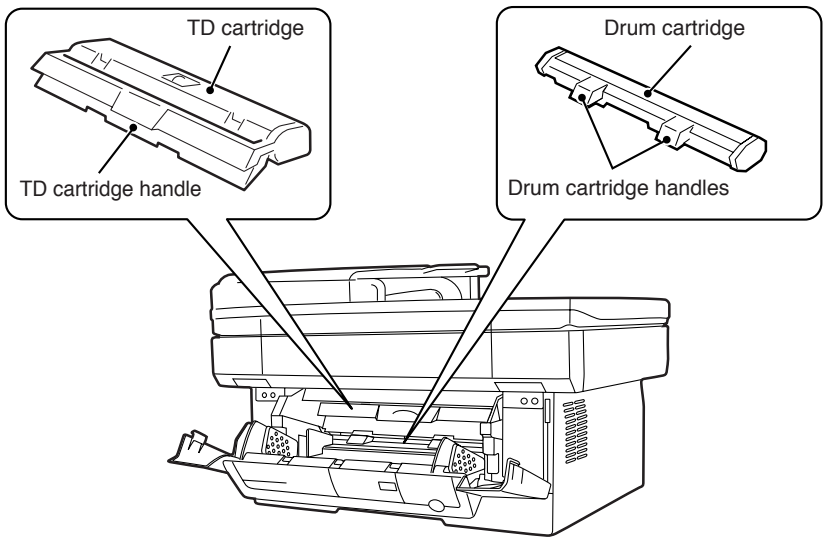
Parts names





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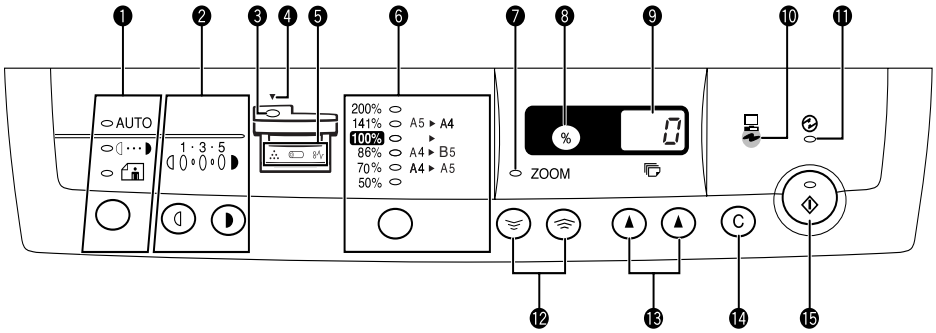
Operation panel

1



❶ **Exposure mode selector key and indicators**
Use to sequentially select the exposure modes: AUTO, MANUAL (◑···◗) or PHOTO (🖻). Selected mode is shown by a lit indicator. (p.20)

❷ **Light (◑) and dark (◗) keys and exposure indicators**
Use to adjust the MANUAL (◑···◗) or PHOTO (🖻) exposure level. Selected exposure level is shown by a lit indicator. (p. 20)
Use to start and terminate user program setting. (p. 27)

❸ **SPF indicator (⬭)**

❹ **SPF misfeed indicator (▾)** (p. 42)

❺ **Alarm indicators**
⬭: Drum replacement required indicator (p.31)
: Misfeed indicator (p.35)
: TD cartridge replacement required indicator (p. 29)

❻ **Copy ratio selector key and copy ratio indicators**
Use to sequentially select preset reduction/ enlargement copy ratios. Selected copy ratio is shown by a lit indicator. (p. 22)

❼ **Zoom indicator** (p. 22)

❽ **Copy ratio display (%) key** (p. 22)

❾ **Display**
Displays the specified copy quantity, zoom copy ratio, user program code, and error code.

❿ **ON LINE indicator**
Lights up when the machine is used as a printer or scanner.

⓫ **Power save indicator**
Lights up when the copier is in a power save mode. (p. 25, 27)

⓬ **Zoom keys (▽, △)**
Use to select any reduction or enlargement copy ratio from 50 to 200% in 1% increments. (p. 22)

⓭ **Copy quantity keys (▲, ▲)**
- Use to select the desired copy quantity (1 to 50). (p. 19)
- Use to make user program entries. (p. 27)

⓮ **Clear key (Ⓒ)**
- Press to clear the display, or press during a copy run to terminate copying. (p. 19)
- Press and hold down during standby to display the total number of copies made to date. (p.41)

⓯ **Print key and ready indicator (⇳)**
- Copying is possible when the indicator is on.
- Use to set a user program.

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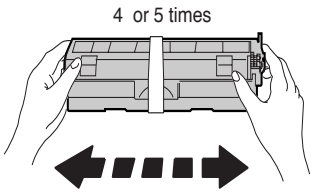
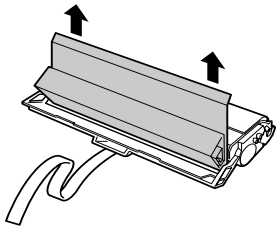
Installing the TD cartridge

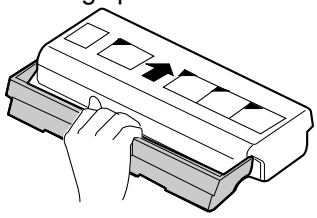
Be sure to remove the protective paper from the drum cartridge before installing the TD cartridge.

1 Remove the TD cartridge from the bag. Hold the cartridge on both sides and shake it horizontally four or five times. Remove the protective tape and then the protective cover.

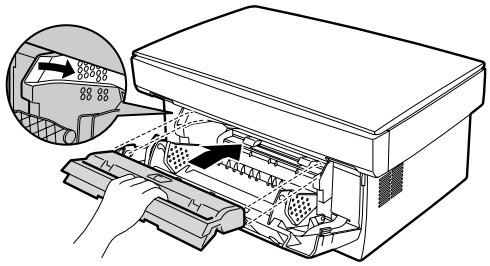




2 Hold the handle of the TD cartridge so that the stamped markings on top of the cartridge are facing upward.



3 Gently insert the TD cartridge into the copier along the guides in the direction indicated by the arrow.



Align the projections on both sides with the guides.

4 Close the front cover.

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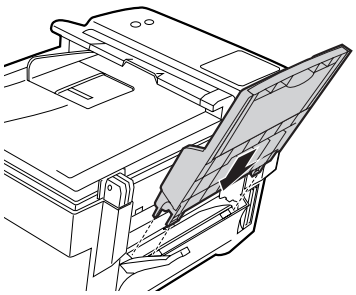
Loading copy paper

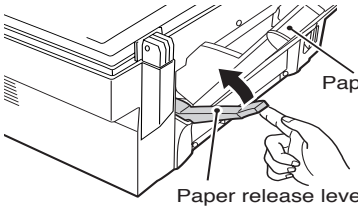
1

1 Hold the paper tray so that the paper guide of the paper tray is facing front and then insert the paper tray into the copier's paper tray slots.



2 Pull the paper release lever located at the back of the copier.

If the paper is inserted without doing this, paper misfeeds will occur.



View from the back of the machine

3 If extra long paper is used, raise the paper support to support the paper. Fan the copy paper and place it into the paper tray with the side to be printed facing toward you. Position the paper along the right end of the paper tray. Then adjust the paper guide to the paper width.

- The paper tray holds up to 250 sheets of standard paper (56 to 80 g/m²). Do not set too many sheets.
- Feed copy paper lengthwise only.
- When copying onto special paper such as labels and transparency film, feed one sheet at a time.

- When copying onto an envelope, insert it so that the side to be printed on is facing upwards and so that the flap on the reverse side is at the right when looking from the front of the copier. Leave a gap of approximately 1 mm between the paper guide and the left edge of the envelope.
- When loading an envelope, make surre that it i straight and flat.

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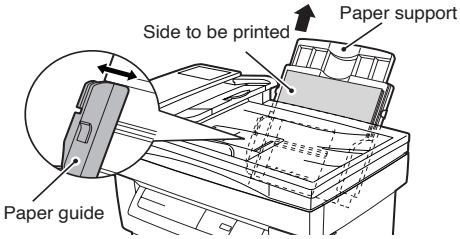
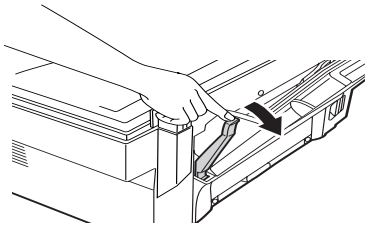


4 Make sure the paper release lever is pushed back. The paper will be clamped by the paper feed roller inside the copier.

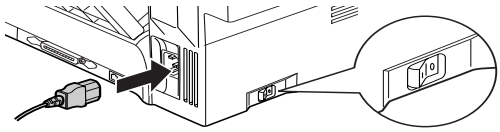


When placing special paper or several sheets of paper or when making two-sided copies, the paper may not be clamped inside the machine even if the paper release lever is pushed back. In this case, repeat the paper release lever operation several times to make sure that the paper is clamped.

Power to machine

1 Ensure that the power switch of the machine is in the OFF position. Insert the attached power cord into the power cord socket at the rear of the machine.

If you use the machine in a country other than the country where the copier was purchased, you will need to make sure that your local power supply is compatible with your model. If you plug the machine into an incompatible power supply, irreparable damage to the machine will result.



2 Plug the other end of the power cord into the nearest outlet.

Only insert the power cord into a properly grounded wall socket. Do not use extension cord or multi-way power distribution boards.

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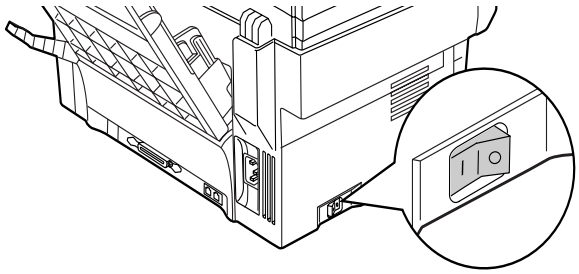
Power on

1

Turn the power switch on the left side of the machine to the "ON" position. The ready (⏻) indicator will light up and other indicators which show the initial settings of the operation panel will also light up to indicate the ready condition. For the initial settings, see the "Initial settings of operation panel" described below.

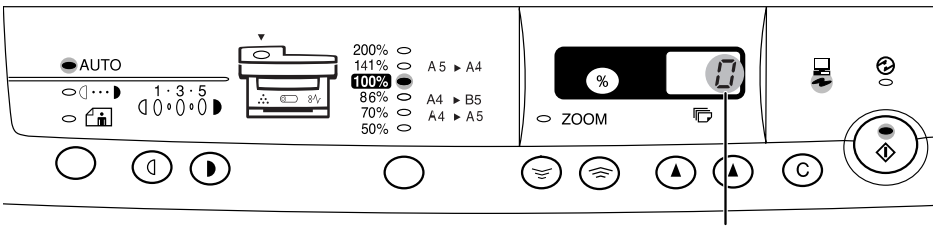
The machine will enter a power save mode once the set time has elapsed without any copier operation after the last copy of a run is made or power is turned on.
The settings of the power save modes can be modified. See page 27, USER PROGRAMS.

The machine will return to the initial settings a preset amount of time after the last copy is made. The preset amount of time (auto clear time) can be changed. See page 27, USER PROGRAMS.



Initial settings of operation panel

The copier assumes the initial settings when the copier is turned on or a preset time (auto clear time) elapses after the last copy is made.



"0" is displayed in the display.

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Connections

1

Connecting the Telephone Line Cord

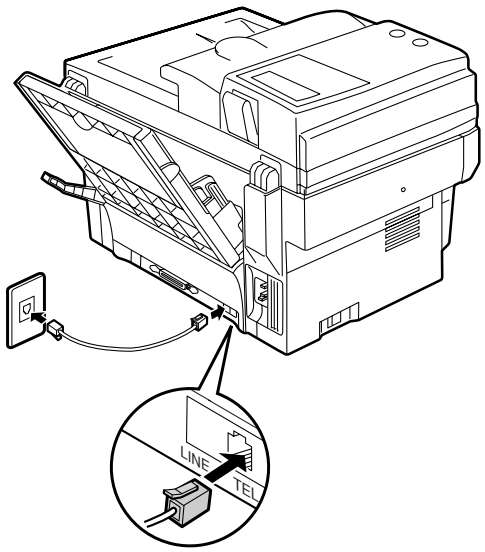
Plug one end of the telephone line cord into the jack on the machine marked “LINE.” Plug the other side into the walljack (using the provided adaptator, if necessary).

For Germany, please connect the cable from the fax machine with the wired plug connector code (F) with the wire down into the wall socket (TAE 6) code (F).

The fax can be used as single device and in combination (in serial connection) with approved terminal equipment (s).

To connect an extension telephone or an answering machine, plug the extension line cordin the provided wall jack adaptator. (See“Connecting Other Devices” in this chapter for details.)

Note: *If your area experiences a high incidence of lightning or power surges, we recommend that you install surge protectors for the power and telephone lines. Surge protectors can be purchased from your dealer or at most telephone specialty stores.*



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1

Connecting Other Devices

If desired, an answering machine or external telephone can be connected to the machine by plugging the external line cord in the external jack of the wall jack (wall socket code “N” for Germany) or in the provided adaptator.

• Connecting an answering machine to the machine allows you to receive both voice and fax messages when you are out. To use this feature, first change the outgoing message of your answering machine, and then set the reception mode of the machine to “A.M.” (Answering Machine mode) when you go out.

The outgoing message of your answering machine should be changed to inform callers who want to send a fax to press their **FAX START** key.

Comments:

1. It is advisable to keep the length of the message under 10 seconds. If it is too long, you may have difficulty receiving faxes sent by automatic dialing.
2. Your callers can even leave a voice message and send a fax message on the same call. Modify your outgoing message to explain that this can be done by pressing their **FAX START** key after leaving their voice message.

• You can connect an extension phone to the machine to make and receive calls like any other extension phone on your line. Even if you pick up the extension phone and hear a fax tone, the machine will automatically cut in and take over the line.

Note: *The Remote Reception function is initially set to “ON”.*

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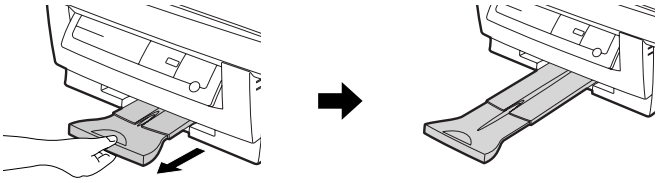
2. MAKING COPIES

Normal copying

This machine has two document input stations - a single pass feeder (SPF) for automatic document feeding and an original table for manual handling of documents. The SPF is designed to hold up to 30 originals of 52 to 80g/m^2 or 25 originals (80 to 90g/m^2 paper measuring from A5 to A4. For copying from the original table, the maximum original size is A4.

1 Ensure that paper of the desired size is set in the paper tray. See page 12, LOADING COPY PAPER.

2 Pull out the paper output tray until it stops as shown in the illustration.



3 Turn the power switch on.

4 Place the original (s) face down in the document feeder tray or on the original table.

A. When using the SPF

(1) Make sure that no original is left on the original table.
(2) Adjust the original guides to the size of original.
(3) Set the originals fae down in the document feeder tray. Feed the originals narrow side into the slot.

- Before feeding originals in the document feeder tray, be sure to remove any staples or paper clips from them.
- Before placing curled or wavy originals into the document feeder tray, be sure to flatten them. If not, original misfeeds may result.
- The SPF (⬭) indicator on the operation panel will light up. If this indicator does not light up, the originals are not properly set or the SPF is not properly closed.
- Badly damaged originals may misfeed in the SPF. It is recommended that such originals be copied from the original table.
- Special originals such as transparency film should not be fed via the SPF, but should be placed directly on the original table.

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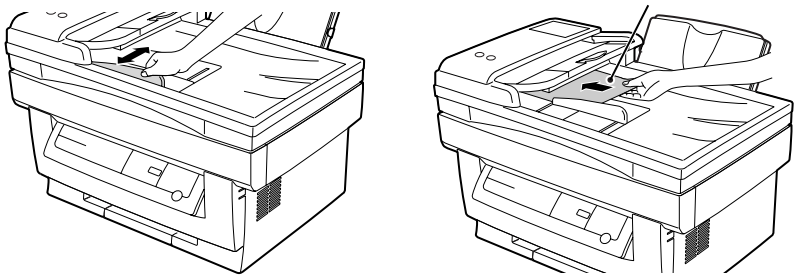
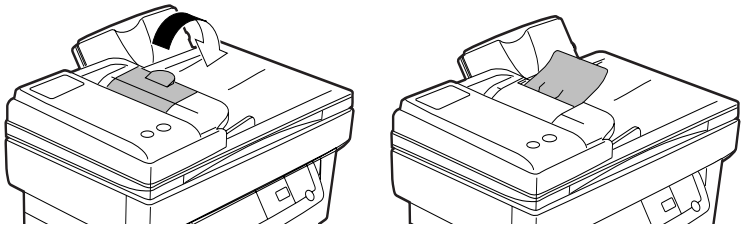
2

Original face down



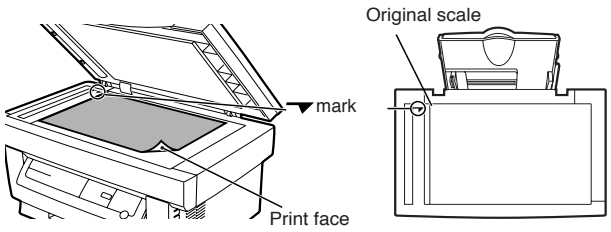
When the original is long, extend the tray of the exit area.



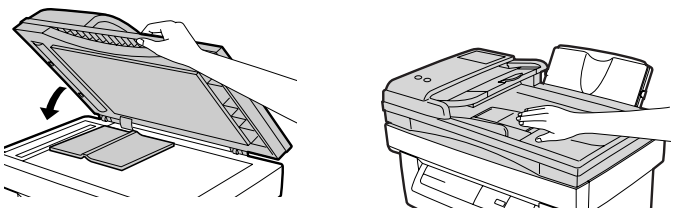
B. When using the original table

(1) Open the original cover.

(2) Place an original face down on the original table and align it with the original scale. (Make sure the upper left corner of the original is set the position indicated by the "▼"). Close the original cover.



When copying a book or an original which has been folded or a crumpled original, press down the original cover lightly. If the original cover is not s ecurely closed, the copies may be striped or blurred.



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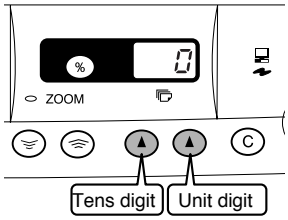
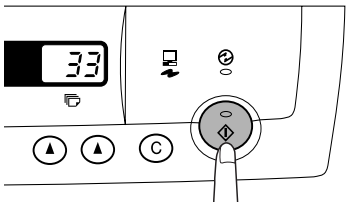
5 Set the number of copies using the two copy quantity (▲,▲) keys.

- Press the clear (C) key to clear an entry if a mistake is made.
- A single copy can be made with the initial setting, i.e., when "0" is displayed.
- If copying onto special papers, feed one sheet at a time and leave the copy quantity at 0.



- Press the right copy quantity key to set the unit digit from 0 to 9. This key will not change the tens digit.
- Press the left copy quantity key to set the tens digit from 1 to 5. Up to 50 copies can be set.

6 Press the print (◇) key.



- To display the number of copies made in a continuous run, press the left copy quantity key.
- To stop copying in the middle of a run, press the clear (C) key. Copying will stop and the number in the display will be reset to "0".
- When the print (◇) key is pressed while printing is being performed, printing will be interrupted and copying will start. Printing will be resumed after copying is finished.

Do not perform copying with the original cover open.

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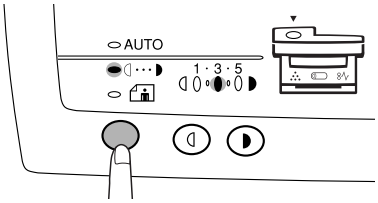
Exposure adjustment/photo copying

2

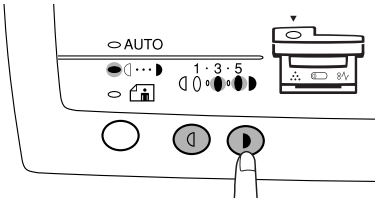
Copy density adjustment is not required for most originals in the automatic exposure mode.
To adjust the copy density manually or to copy photographs, the exposure level can be adjusted in five steps manually.

1 Set the original and check the copy paper size.

2 Press the exposure mode selector key to select the manual (◑···◗) or photo (🖻) mode.



3 Use the light (◑) and dark (◗) keys to adjust the exposure level.
If exposure level 2 is selected, the two left-handmost indicators for that level will light up simultaneously. Also, if level 4 is selected, the two right-handmost indicators for that level will light up simultaneously.



4 Set the number of copies using the copy quantity (▲,▲) keys and press the print (⇕) key.

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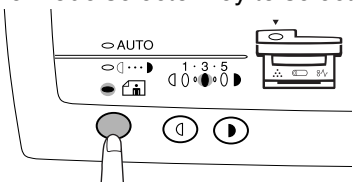
Automatic exposure adjustment

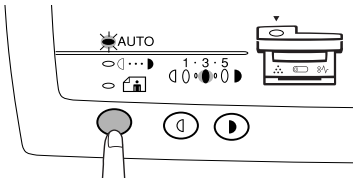
The automatic exposure level can be adjusted to suit your copying needs. This level is set for copying from the original table and copying from the SPF respectively.

1 When adjusting the automatic exposure level for copying from the SPF, place an oriignal in thedocument feeder tray and make sure that the SPF(⬭) indicator lights up.
When adjusting the level for copying from the original table, make sure that no original is left in the document feeder tray.

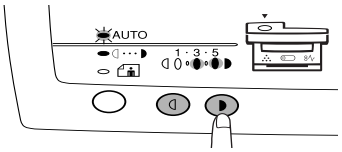
2 Press the exposure mode selector key to select the photo (🖻) mode.



3 Press and hold down the exposure mode selector key for approximately 5 seconds.
The photo (🖻) indicator will go out and the AUTO indicator will begin to blink. One or two exposure indicators corresponding to the automatic exposure level which has been selected will light up.



4 Press the light (◐) or dark (◑) key to lighten or darken the automatic exposure level as desired.
If exposure level 2 is selected, the two left-handmost indicators for that level will light up simultaneously. Also, if level 4 is selected, the two right-handmost indicators for that level will light up simultaneously.



5 Press the exposure selector key. The AUTO indicator will stop blinking and light up steadily.

This automatic exposure level will remain in effect until you change it again by this procedure.

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Reduction/Enlargement/Zoom

2

Three preset reduction ratios and two enlargement ratios can be selected. The zoom function enables copy ratio selection from 50% to 200% in 1% increments.

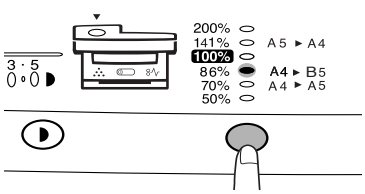
1 Set the original and check the copy paper size.

2 Use the copy ratio selector key and/or zoom (▽,△) keys to select the desired copy ratio.

- To verify a zoom setting without changing the zoom ratio, press and hold down the copy ratio display (%) key. When the key is released, the display will return to the copy quantity display.
- To reset the ratio to 100%, press the copy ratio selector key repeatedly until the 100% indicator lights up.
- In order to decrease rapidly the zoom ration, press and hold down the (▽ or △) key. But, the value will stop on the preset reduction and enlargement ratios. In order to go up to these values, loose the key and then press and hold it down again.

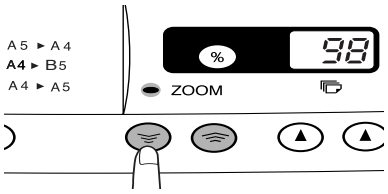
To select a preset copy ratio:

Preset reduction and enlargement ratios are: 50%, 70%, 86%, 141%, and 200%.



To select a zoom ratio:

When a zoom (▽ or △) key is pressed, the ZOOM indicator will light up and the zoom ratio will be displayed in the display.



3 Set the number of copies using the copy quantity (▲,▲) keys and press the print (◉) key.

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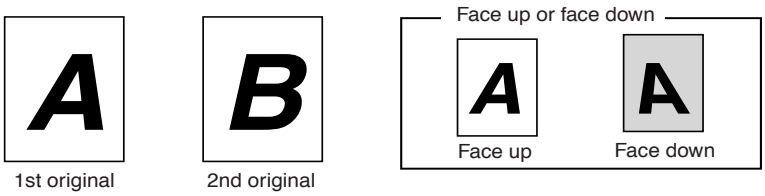
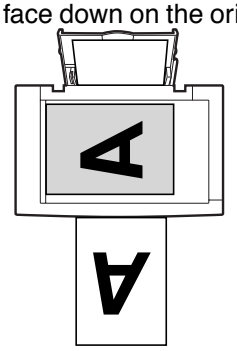
Two-sided copying

Two-sided copying can be made on this machine.

Example:
The following two originals will be copied onto two sides of copy paper.

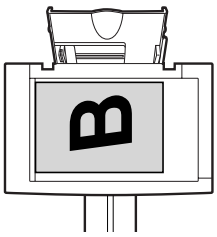


1 Place the first oriignal face down on the original table and make a copy.



2 Replace the first original with the second original on the original table and close the original cover. Place the second original in the reverse orientation to the first original.

- When feeding copies to copy onto the back side, be sure to feed them one sheet at a time.
- Curled or wavy copies must be flattened before they are fed. If not, crumpling, paper misfeeds or smudges on copies may result.



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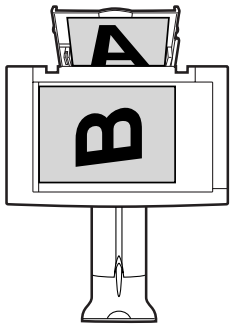
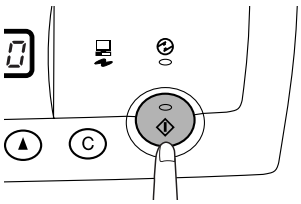
2

3 Turn the first copy over top to bottom as shown. Feed the first copy into the paper tray.



Both the first and second originals ca be set in the SPF but they must be set separately.

4 Press the print (◈) key.



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3. SPECIAL FUNCTIONS

Description of special functions

Toner save mode (page 26)

Reduces toner consumption by approximately 10%.

Power save modes (page 27)

The copier has two power save modes of operation: preheat mode and auto power shut-off mode.

Preheat mode

When the copier enters the preheat mode, the power save (⏻) indicator will light up and other indicators will remain on or off as before. In this condition, the fuser in the copier is maintained at a lower heat level, thereby saving power. To copy from the preheat mode, make desired copier selections and press the print (◈) key using the normal copying procedure.

Auto power shut-off mode

When the copier enters the auto power shut-off mode, the power save (⏻) indicator will light up and other indicators will go out. The auto power shut-off mode saves more power than the preheat mode but requires a longer time before starting copying. To copy from the
auto power shut-off mode, press the print (◈) key. Then make desired copier selections and press the print (◈) key using the normal copying procedure.

Auto clear (page 27)

The copier returns to the initial settings a preset amount of time after the last copy is made. This preset amount of time (auto clear time) can be changed.

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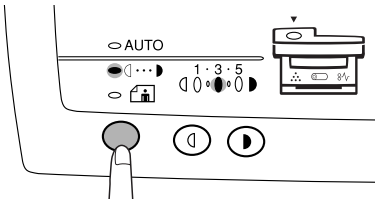
Toner save mode

When the machine is used as a laser printer, the toner save mode which is set as described below does not function. Set the toner save mode using the printer driver.

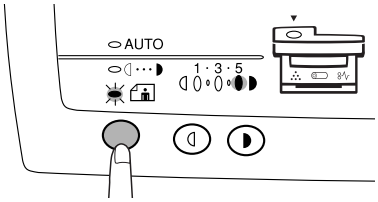
3

1 Press the exposure mode selector key to select the manual (◑···◗) mode.



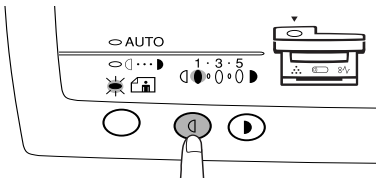
2 Press and hold down the exposure mode selector key for approximately 5 seconds.

The manual (◑···◗) indicator will go out and the photo (🖻) indicator will begin to blink. The exposure indicator marked “5” will light up, indicating the standard toner mode is active.



3 To enter the toner save mode, press the light (◑) key.

The exposure indicator marked “1” will light up, indicating the toner save mode is selected.



4 Press the exposure mode selector key twice. The photo (🖻) indicator will stop blinking and the AUTO indicator will light up steadily. The toner save mode is now active.

To return to the standard mode, repeat the procedure but use the dark (◗) key to select exposure level “5” in step 3.

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User programs

The user programs allow the parameters of certain functions to be set, changed, or canceled as desired.

Paper must be present in the paper tray before user programs can be accessed.

Setting the power save modes and auto clear time

1 Press and hold down the light (◐) and dark (◑) keys simultaneously for more than 5 seconds until all the alarm indicators (⊙, ⚠, ⛬) blink and "– –" appears in the display.

2 Use the left copy quantity (▲) key to select a user program number. The selected number will blink in the left side of the display.

3 Press the print (⎙) key. The entered program number will be steadily lit and the currently selected parameter number for the program will blink on the right side of the display.

4 Select the desired parameter using the right copy quantity (▲) key. The entered parameter number will blink on the right of the display.

Programno./Mode	Parameters	
1 Auto clear time	0⇨OFF * 2⇨60 sec. 4⇨120 sec.	1⇨30 sec. 3⇨90 sec. 5⇨10 sec.
2 Preheat mode	0⇨30 sec. * 2⇨90 sec.	1⇨60 sec.
3 Auto power shut-off timer	0⇨2 min. 2⇨15 min. 4⇨60 min.	* 1⇨5 min. 3⇨30 min. 5⇨120 min.
5 Auto power shut-off mode	0⇨OFF	* 1⇨ON
9 Paper detection mode	0⇨OFF	* 1⇨ON

Factory default settings are indicated with an asterisk (*)

Paper detection mode

If the width of the paper in the paper tray is less than 210 mm, the width of scanning will be reduzed to 138 mm.

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5 Press the print (⑤) key. The right-hand number in the display will be steadily lit and the entered value will be stored.

3

To change the setting or to set another mode, press the clear (ⓒ) key. The copier will return to step 2.

6 Press the light (◐) or dark (◑) key to return to the normal copy mode.

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TD cartridge replacement

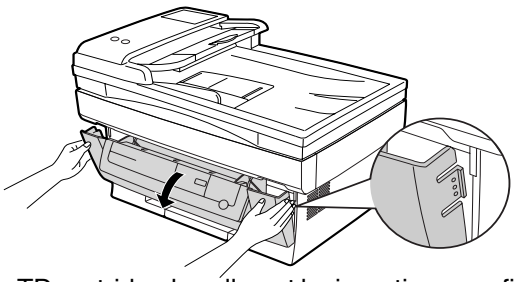
Be sure to use only genuine SHARP parts and supplies.

The TD cartridge replacement required (⁂) indicator will light up when toner is needed. For more information on purchasing the TD cartridge, see SUPPLY LIST on page 128. If copying is continued while the (⁂) indicator is lit, copies will gradually become lighter until the copier stops and the indicator begins blinking. Replace the old TD cartridge by following the procedure given below.

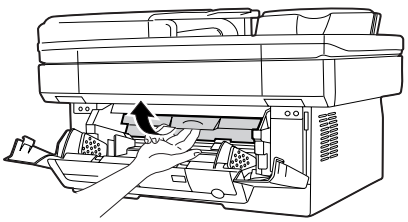
- After the copier stops, it may be possible to make a few more copies by taking the TD cartridge out of the copier, shaking it horizontally, then reinstalling it. If copying is not possible after this operation, replace the TD cartridge.
- If the indicator begins to blikn while facsimile data is being received, the data will not beprinted and will be stored in memory. After the TD cartridge is replaced,the data that has been storedin memory will be automatically printed.

Do not turn off the machinepower when replacing the TD cartridge. Doing so will clear any facsimile or print data that has been stored in memory.

1 Push gently on both sides of the front cover to open the cover.



2 Gently pull the TD cartridge handle out by inserting your fingers into the groove at the center of the handle.



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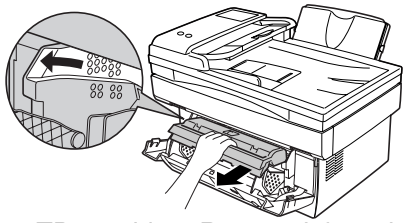
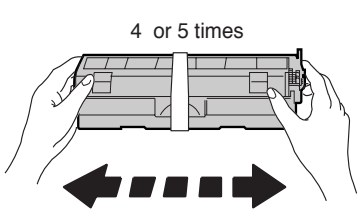
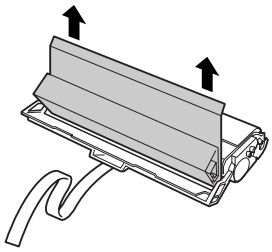
3 Grasp the handle of the cartridge and pull the cartridge clear of the machine. Dispose of the old TD cartridge in accordance with local regulations.

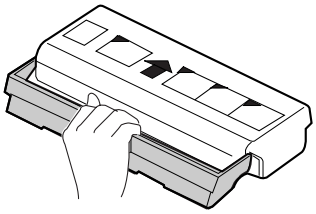


4 Install a new TD cartridge. Remove it from the bag. Hold it on both sides and shake it horizontally four or five times. Remove the protective tape and then the protective cover.

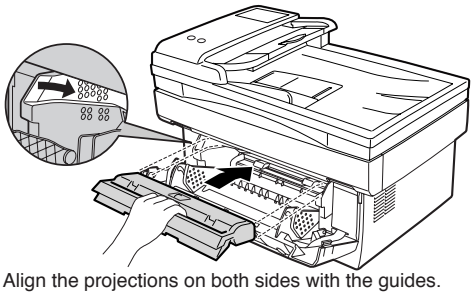




5 Hold the handle of the TD cartridge so that the stamped markings on top of the cartridge are facing upward.



6 Gently insert the TD cartridge into the copier along the guides in the direction indicated by the arrow.



Align the projections on both sides with the guides.

7 Close the front cover. The ∴ indicator will go out and the ready (◎) indicator will light up.

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Drum cartridge replacement

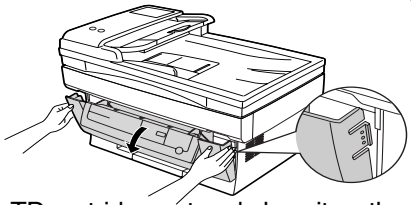
The useful life of the drum cartridge is approximately 20,000 copies. When the internal counter reaches approximately 19,000 copies, the drum replacement required (⊙) indicator will light up indicating that replacement of the drum cartridge will be needed soon. For more information on purchasing the drum cartridge, see SUPPLY LIST on page 128. When the indicator begins to blink, the copier will stop operating until the cartridge is replaced. Replace it at this time.

Do not turn off the machine power when replacing the TD cartridge. Doing so will clear any facsimile or print data that has been stored in memory.

4

1 Place some scrap paper on a nearby level surface.

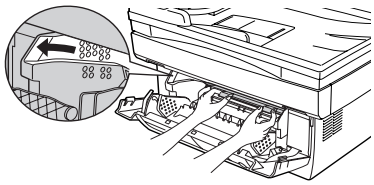
2 Push gently on both sides of the front cover to open the cover.



3 Gently pull the TD cartridge out and place it on the scrap paper which was prepared in step 1. To remove the TD cartridge, see page 30, step 3.

4 Using both hands hold the tabs on the drum cartridge between your thumb and index finger and gently pull the cartridge up and out in a circular motion to lift it clear of the machine. Dispose of the old drum cartridge in accordance with local regulations.

The fusing unit beneath the drum cartridge is hot. Be careful not to touch the fusing unit when removing the drum cartridge.



5 Remove a new drum cartridge from its plastic bag and set it down on a clean, uncluttered and level surface being careful not touch the drum surface.

The new drum cartridge is sealed with a sheet of black protective paper to shield the drum from light. To prevent damage to the drum surface, do not remove the protective paper until you have inserted the cartridge into the machine.

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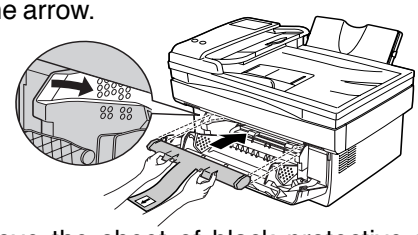
6 Using both hands hold the tabs on the new drum cartridge between your thumb and index finger, place the two projections on both ends of the cartridge along the guides, and gently insert the cartridge in the direction indicated by the arrow.

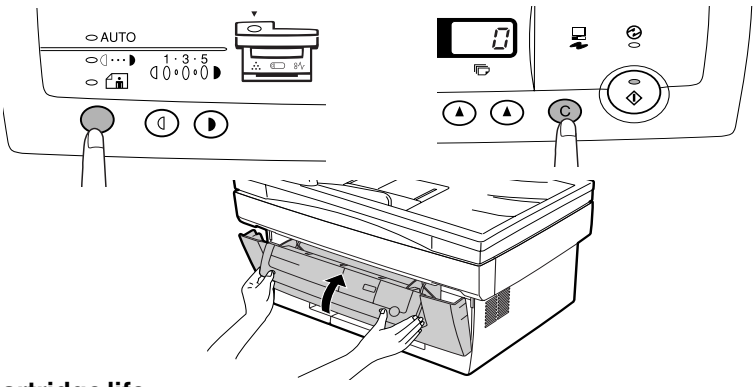


4

7 Carefully remove the sheet of black protective paper from the drum cartridge by pulling the partindicated by the arrow toward you, making sure not to leave any torn pieces of paper in the machine.

8 Gently replace the TD cartridge. To install the TD cartridge, see page 29, TD CARTRIDGE REPLACEMENT.

9 Pressing and holding down both the exposure mode selector key and clear (©) key, close the front cover. Continue to hold down these keys for five seconds (drum initialization processing). The drum replacement required (⊙) indicator will go out.



Drum cartridge life

To find out how many more copies can be made before the 20,000 mark is reached, follow the procedure described below.

1 Press and hold down the light (◐) and dark (◑) keys simultaneously for more than 5 seconds until all the alarm indicators (⊙, ⁂, ∴) blink and "– –" appears in the display.

2 Press and hold down the clear (©) key for more than 5 seconds to find out how many more copies can be made.
Example: 500 copies can be made before the next drum cartridge replacement. 000 ⇨ 500

3 Press the light (◐) or dark (◑) key. The ready (⊛) indicator will light up.

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User maintenance

Proper care is essential in order to get clean, sharp copies. Be sure to take a few minutes to regularly clean the machine.

Before cleaning, be sure to turn the power switch off and remove the power cord from the outlet.

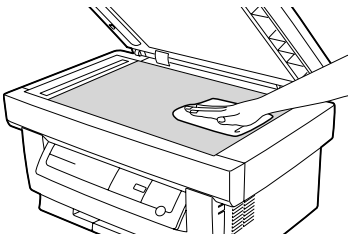
Do not use thinner, benzene or other volatile cleaning agents. Doing so may cause deformation, discoloration, deterioration or malfunction.

4

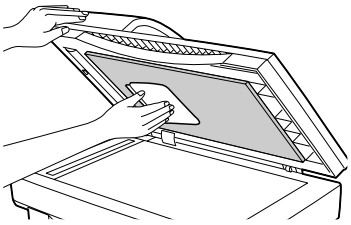
Cabinet
Wipe the cabinet with a soft, clean cloth.

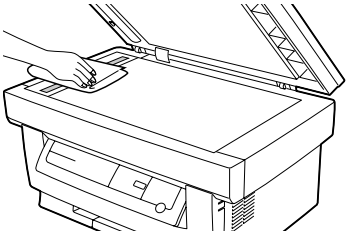
Original table and original cover
Dirt or stains on the glass or cover will also be copied. Wipe the glass and the cover with a soft, clean cloth. If necessary, dampen the cloth with water or a glass cleaner.

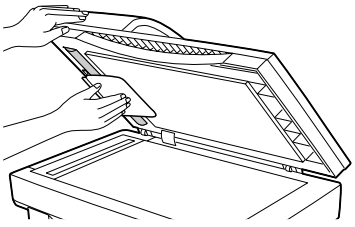
Original table



Original cover







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Cleaning the drum cartridge

If some parts of the images are missing from the printed page, you may need to clean the surface of the drum in the drum cartridge. Because the drum surface is very sensitive, you must take extreme care when cleaning it, otherwise it may become damaged, and any damage to this component will have a serious effect on the print quality.

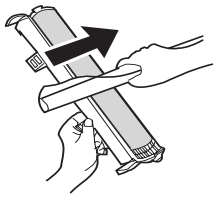
Follow the procedure below to clean the drum surface.

1. Turn off the machine power.
2. Remove the TD cartridge. To remove the TD cartridge, see page 29, step 2.
3. Remove the drum cartridge. To remove the drum cartridge, see page 31, DRUM CARTRIDGE REPLACEMENT.

Put the drum cartridge down on a clean, uncluttered and level surface. The drum can easily become damaged if it is not handled with care.

4. Take a sheet of clean paper and roll it into a tube. Roll it tightly so that the diameter of the hole at each end is less than the thickness of your little finger.
5. Gently rub the surface of the drum (green portion) with the rolled-up paper to remove any particles of toner caking on the drum.

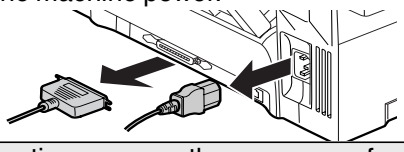
- Do not touch the drum surface with the edges of rolled-up paper.
- Do not let the drum surface come into contact with anything other than the rolled-up paper. Fingerprints, water, alcohol and other solvents will damage the drum surface.



6. Replace the drum cartridge. (See page 31, DRUM CARTRIDGE REPLACEMENT.)
7. Replace the TD cartridge. (See page 30, TD CARTRIDGE REPLACEMENT.)
8. Close the front cover and turn on the machine power.

When the machine is not in use

Remove the power cord and the interface cable.



If this machine is not in use for a long time, remove the copy paper from the paper tray and store it in a location that is not humid. If the copy paper is left in the paper tray for a long time, it will absorb moisture, resulting in paper misfeeds.

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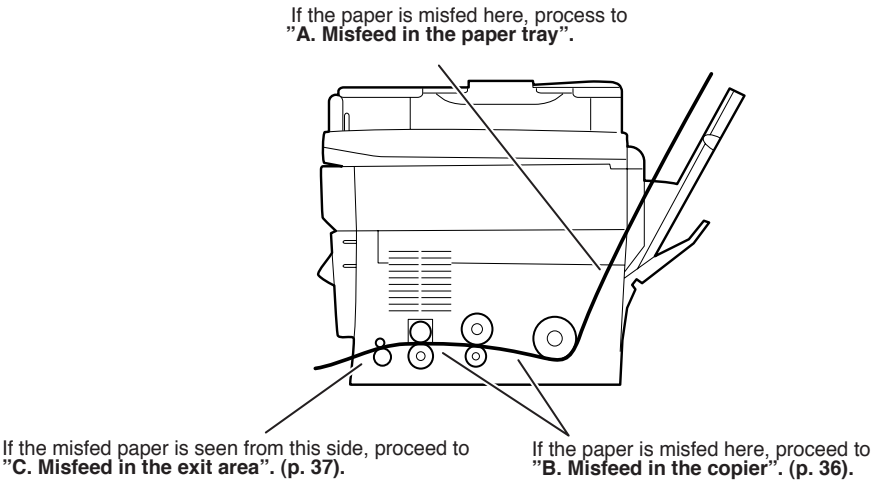
Misfeed removal

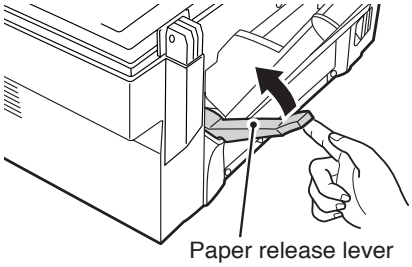
When the misfeed (⚠) indicator blinks or [P] blinks in the display, the copier will stop because of a misfeed.
Check the misfeed location. Remove the misfed paper following the instructions for each location in the illustration below.
If [P] blinks in the display, proceed to “A Misfeed in the paper tray”.


If the paper is misfed here, process to
”A. Misfeed in the paper tray”.
If the misfed paper is seen from this side, proceed to
”C. Misfeed in the exit area”. (p. 37).
If the paper is misfed here, proceed to
”B. Misfeed in the copier”. (p. 36).

If a misfeed occurs when using the SPF, [- 1] may appear in the display. This indicates that one original must be returned to the document feeder tray after a misfeed. Return one original. Then this number will disappear when copying is resumed or the clear (C)key is pressed. When the SPF misfeeds an original shet, the machine will stop and the SPF misfeed (◄) indicator will blink, while the misfeed (⚠) indicator will remain off. For a misfeed of originals in the SPF, see ”D. Misfeed in the SPF” on page 38.

A. Misfeed in the paper tray

1 Pull the paper release lever at the right of the paper tray toward you.



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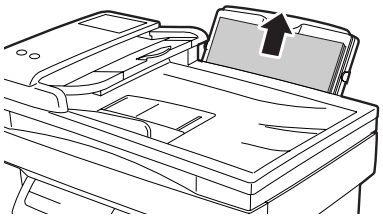
2 Remove all the paper, including the jammed paper, from the paper tray.

If the misfed paper will not come out easily, do not pull it hard, as you may tear it or damage the printing mechanism. In such cases, proceed to “B. Misfeed in the copier”.



5

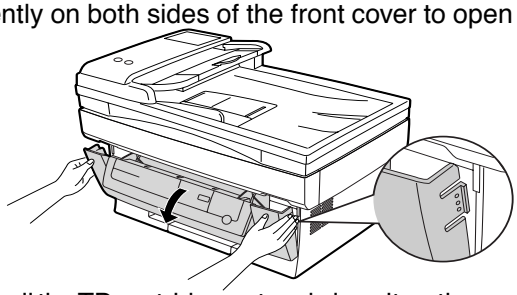
3 Straighten the edges of the stack of paper and then reinsert it into the paper tray.

4 Push the paper release lever back again to secure the paper.

B. Misfeed in the copier

1 Place some scrap paper on a nearby level surface.

2 Push gently on both sides of the front cover to open the cover.



3 Gently pull the TD cartridge out and place it on the scrap paper which was prepared in step 1. To remove the TD cartridge, see page 29, step 2.

4 Take a piece of scrap paper that is larger than the drum cartridge and fold it in half. Keep this paper ready to shield the light-sensitive part of the drum cartridge from light after it is removed from the machine.

- The paper to be used for placing the TD cartridge and drum cartridge may be soiled due to toner, etc.
- The paper for placing the drum cartridge must be enough large to cover the surface of the cartridge (green portion) and must be foldable in half.

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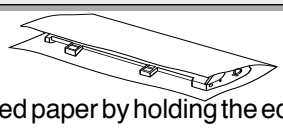
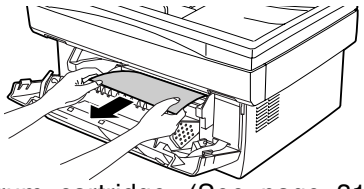
5 Gently pull the drum cartridge out and wrap the removed drum cartridge in the paper which was prepared in step 4 so that the green drum section is shielded from light. Place the drum cartridge down on a level surface. To remove the drum cartridge, see page 31, DRUM CARTRIDGE REPLACEMENT.

The fusing unit is hot. Do not touch the fusing unit when removing misfed paper. Doing so may cause a burn or other injury.

Do not touch the surface of the drum (green portion) of the drum cartridge. Doing so may damage the drum and cause smudges on copies.



6 Remove the misfed paper by holding the edge of the paper nearest you and pulling it gently in a straight line.



7 Replace the drum cartridge. (See page 31, DRUM CARTRIDGE REPLACEMENT.)

8 Replace the TD cartridge. (See page 29, TD CARTRIDGE REPLACEMENT.)

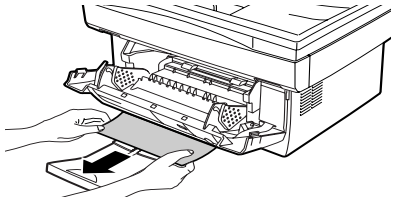
9 Close the front cover.

C. Misfeed in the exit area

1 Push gently on both sides of the front cover to open the cover.

2 Remove the misfed paper from the exit area by holding the edge of the paper nearest you and pulling it gently in a straight line.

Do not pull the misfed paper too hard with the front cover closed, as you may tear it or damage the printing mechanism. Be sure to open the front cover and then remove the misfed paper.



3 Close the front cover.

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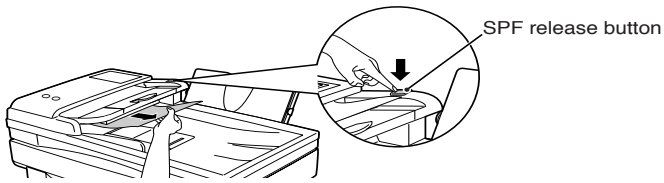
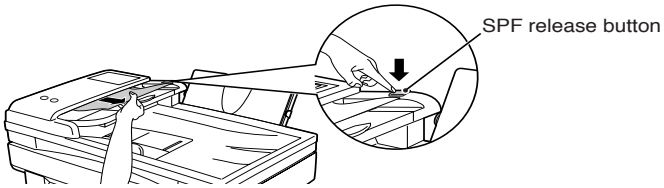
D. Misfeed in the SPF

An original misfeed may occur at one of three locations. If the misfed original can be seen only in the document feeder tray, proceed to (A) below. If the original can be seen in the exit area, proceed to (B) below. If the misfed original cannot be seen in the document feeder tray or the exit area, proceed to (C) below. Remove the misfed original following the instructions for each location.

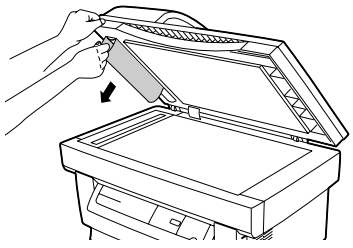
(A) While pressing the SPF release button, pull the original gently to the right and out from the document feeder tray. Open and close the original cover to clear the SPF misfeed (▾) indicator. If the misfed original cannot be easily removed, proceed to (C) without pulling the original forcibly from the document feeder tray.



(B) While pressing the SPF release button, pull the original gently to the right and out from theexit area. Open and close the original cover to clear the SPF misfeed (▾)indicator. If the misfed original cannot be easily removed, proceed to (C) without pulling the original forcibly.



(C) If the original does not move easily into the exit area, remove it in the direction of the arrow.



-1 may appear in the display, indicating that one original must be returned to the document feeder tray.
Clear the misfeed and return the required number of originals. Then press the print (◇) key to resume copying.

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Copier trouble

If any problem occurs, check the list before contacting the Sharp Service Centre.

Problem	Possible cause	Solution
Machine does not operate	Copier plugged in?	Plug the copier into a grounded outlet. p. 15
	Power switch on?	Turn the power switch on. p. 16
	Front cover closed?	Gently close the front cover.
Blank copies	Is the original placed face down on the original table or in the SPF?	Place the original face down on the original table or in the SPF. p. 17
Power save (⏻) indicator on	Is the copier in the auto power shut-off mode?	Press the print (⎙) key to cancel the auto power shut-off mode. p. 25
Copies are too dark or too light	Is original image too dark or too light?	Adjust the exposure manually. p. 20
	Is the copier in the automatic exposure mode?	Adjust the automatic exposure level. p. 21
	Is the copier in the photo exposure mode?	Cancel the photo exposure mode. p. 20
Dust, dirt, smudges apear on copies	Original table or original cover dirty?	Clean regularly. p. 33
	Original smudged or blotchy?	Use a clean original.
Par of images missing	Is drum cartridge clean?	Clean the drum cartridge. p. 34
Paper misfeeds frequently	Non-standard paper used?	Use standard paper. If using special papers, feed the paper one sheet at a time. p. 128
	Paper curled or damp?	Store copy paper flat in the wrapper in a dry location. p. 128
	Pieces of paper inside copier?	Remove all pieces of misfed paper. p. 35
	Paper guides in the paper tray not set properly?	Set the guide properly depending on the paper size. p. 12
	Too much paper in the paper tray?	Remove excessive paper from the paper tray. p. 12
	TD cartridge or drum cartridge not installed properly.	Ensure that the TD cartridge and drum cartridge are installed properly. p. 29, 31
Images rub off the copy easily	Is the copy paper too heavy?	Use copy paper within the specified range. p. 128
	Paper damp?	Replace with dry copy paper. If the copier is not used for long time, remove the paper from the paper tray and store it in its wrapper in a dry location. p. 128

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Copy and print quality problems

The causes listed in the table below are probable causes only, and may not represent all of the possible cases which may occur under actual operating conditions. If you experience a problem which does not seem to fall under any of the cases listed in this table, or if you are concerned about any other aspect of copying and printing operation, contact your SHARP service center.

Problem	Possible cause	Solution
Irregular faded patches or print	There is a paper quality problem	Use only paper that meets the pecifications required by the machine. p. 128
	Toner may be unevenly distributed	Remove the TD cartridge and shake it gentl to evenly distribute the toner. Then replace the TD cartridge. p. 30
Machines prints out blank pages	The TD cartridge is not installed properly	Check that the TD cartridge is installed correctly. p. 30
Black staining	There is a paper quality problem	Use only paper that meets the pecifications required by the machine. p. 128
	A Td cartridge from another SHARP machine has been installed	Always use the same TD cartridge with the same machine. Using a cartridge that has already been used in another machine may not give satisfactory results.
Character voids	The paper may be too dry	Try copying or printing with a different batch of paper.
Image voids along a paper edge	TD cartridge or drum cartridge not installed properly	Ensure that the TD cartridge and drum cartridge are installed properly. p. 29, 31
Background scatter	The paper may be to damp	Try copying or printing with a different batchof paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture from the air. p.128
	Copying or printing over uneven surfaces	If printing onto envelopes, change your printing layout to avoid priting over areas that have overlapping seams on the reverse side.
	Operating environment (temperature, humidity) is not proper	Use the machine in proper operating environment. p.4

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Problem	Possible cause	Solution
Missing characters	The paper may be too damp	Try copying or printing with a diferent batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture from the air. p. 128
	The drum may be dirty	Clean the drum. p.34
Double printing (previous image overlaps with current image)	Thick paper is used	Feed thick paperone sheet at a time. p.128
	The paper may be to dry	Try copying or printing with a different batch of paper.
Back of printout dirty	The transfer roller may be dirty	Copy or print a fewblank pages to clean the transfer roller.
Faded graphics	Toner may be unevenly distributed	Remove the TD cartridge and gently shake it horizontally to evenly distribute toner.p. 30
	Toner is low	TD cartridge must be replaced soon. Prepare a new TD cartridge. p.29

5

Displaying total number of copies

Use the following procedure to display the total number of copies.

1 Press the clear (©) key to reset the display to zero.

2 Press and hold down the clear (©) key for approximately 5 seconds. The total number of copies will appear in two steps, each with three digits.

Example:
Total number of copies is 1,234.

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Status indiators

When the following indicators light up or blink on the operation panel or the following displays appear in the display, solve the problem immediately referring to both the table below and the relevant page.

	Indication		Cause and remedy
	Drum replacement required indicator	Steadlily lit	Replacement of drum cartridge will be needed soon. Obtain a new cartridge.
		Blinking	Drum cartridge must be replaced. Replace it with a new one. p.31
	TD cartridge replacement indicator	Steadlily lit	Replacement of TD cartridge will be needed soon. Obtain a new cartridge.
		Blinking	TD cartridge must be replaced. Replace it with a new one. p.29
	Misfeed indicator	Blinking	A misfeed has occurred. Remove the misfed paper referring to the description of "Misfeed removal." p.35
	SPF misfeed indicator	Blinking	An original misfeed has occured in the SPF. Remove the misfed originals referring to the description of "Misfeed in the SPF." p.38
CH	"CH" is blinking in the display		The TD cartridge is not installed. Check if the cartridge is installed. p.30
	"CH" is steadily lit in the display		Front cover is open. Close the front cover securely.
P	"P" is blinking in the display		Paper tray is empty. Load copy paper. p.12
			A misfeed has occurred in the paper tray. Remove the misfed paper. p.35
L / 3	A letter and a number appear alternately		The copier will not function. Turn the power switch off and then switch it on, and if there is again an error, remove the power cord from the outlet, and contact your authorized Service representative.
-1	"-1" appears in the display		A misfeed has occured when using the SPF. Return one original to the document feeder tray. p.38
E7 / F6 / U2 / L1 ⇩⇧ L6 / H2 ⇩⇧ H4	A letter and a number appear		Turn the power switch off. Wait 5 seconds approximately. Turn the power switch on. If the problem still remains, contact your authorized Service representative.

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6. INITIAL SETTINGS

A look at the operation panel

Left arrow key (◄) and right arrow key (►)
Press these keys to scroll through a menu. During input mode, these keys are also sometimes used to move the cursor.

FUNCTION key
Press this key to enter function mode.

LIQUID CRYSTAL DISPLAY
This display shows the various message during fax operation and programming.

BOOK SEND key
Press this key to fax a document from the original table.

RESOLUTION key
Press this key to adjust the resolution before sending faxes.

CONTRAST key
Press this key to adjust the contrast before sending faxes.

Rapid keys
Press one of these keys to dial a fax or telephone number automatically. Press Rapid key 20 to start polling. (Note that you must attach the Rapid key labels.)

Number keys
Press these keys to dial numbers, and enter numbers and letters during number/name storing procedures.

✳/#
Press these keys to enter symbols during the name storing procedure.
Pres these keys to scroll thoruh a menu. During input mode, these keys are also sometimes used to move the cursor

STOP key
Press this key to stop an operation before it is completed, or to delete the number that was last input. This key is also used to close the line when manually dialing.

FAX START key
Press this key to begin sending a fax or manually receiving a fax.

ENTER key
Press this key to decide an item in a menu, or to enter numbers and letters you have typed in.

AUTO light
This light indicates that the machine will answer the machine automatically.

MANUAL light
This light indicates that the machine must be answered manually.

A.M. light
This light indicates the answering machine will answer the line if properly connected.

RECEPTION MODE key
Press this key to select the mode of reception.

BROADCAST key
Press this key to send documents to a group of receiving fax machines.

DOCUMENT key
Press this key to perform a direct send fax transmission.

SPEED/SEARCH key
Press this key to dial a two digit Speed Dial number. During character inputting, use this key to delete an incorrect entry. Press this key twice to search for an automatic dialing number.

REDIAL/PAUSE key
Press this key to automatically redial the last number you dialed. Also, press this key to insert a pause when entering numbers.

SPEAKER key
Press this key to begin manual dialing. (To close the line, press the SPEAKER key again.)

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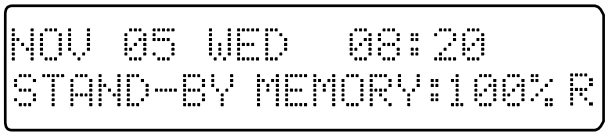
About the Liquid Crystal Display

The machine is equipped with a two-line liquid crystal display (LCD) on the operation panel for displaying various messages and settings during operation. This LCD can display up to 20 characters on each line. When the machine is idle, the LCD shows the date, time, and the stand-by memory available.

Example:



Note: *R means this machine is in the Reverse Sending mode. It appears when LCD shows "STAND-BY" or "SEND READY".*

Using the Arrow Keys

6

The **left and right arrow** (◄ ►) keys on the operation panel of the machine are very useful for scrolling through the various function lists and settings. Once you have pressed the **FUNCTION** key, you can scroll through the ten functions as desired. (See the Function mode at the top of the Quick Reference Guide for the settings.) Pressing the **ENTER** key chooses the displayed function. For many of the function lists, you can then use the arrow keys again to scroll through the settings.

Adjusting the Beep Volume

Adjust the volume of both key beeps and alarm beeps (emitted at the end of transmission and reception) using the procedure below.

Factory setting: 3 (MEDIUM)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	1, JKL 5	"BEEP VOLUME" will appear in the display.
3	◄ or ►	Press the ◄ or ► key to lower or raise the volume to the desired level.
4	ENTER	"STORED" will appear in the display.
5	STOP, STOP	Press the **STOP** key twice to exit.

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Adjusting the Ringing Volume

Adjust the ringing volume of the machine using the procedure below.

Factory setting: 3 (MEDIUM)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	1, PQRS 7	"RINGING VOLUME" will appear in the display.
3	◄ or ►	Press the ◄ or ► key to lower or raise the volume to the desired level.
4	ENTER	"STORED" will appear in the display.
5	STOP, STOP	Press the **STOP** key twice to exit.

6

Setting the Length of Alarm Beeps

You can select the length in seconds of the alarm beeps following the procedure below.

Factory setting: 1 (3SEC)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	1, GHI 4	"BEEP LENGTH" will appear in the display.
3	◄ or ►	Press the ◄ or ► key to set the alarm beeps to the desired length or to turn them off.
4	ENTER	"STORED" will appear in the display.
5	STOP, STOP	Press the **STOP** key twice to exit.

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Turning Key Beeps Off

If you prefer, you can choose to turn the key beeps off. To do this, follow the procedure below:

Factory setting: 1 (ON)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	1, PQRS 7	"KEY BEEPS" will appear in the display.
3	1 or ABC 2	Press **1** to turn the key beeps on, or **2** to turn them off.
4	STOP, STOP	Press the **STOP** key twice to exit.

6

Setting the Language

You can select language of display and reports. To do this, follow the procedure below :

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	ABC 2, 1	"LANGUAGE" will appear in the display.
3	◄ or ►	Press the ◄ or ► key to scroll the languages.
4	ENTER	Press the **ENTER** key twice to exit.
5	STOP, STOP	Press the **STOP** key rwice to exit.

Note:
After changing the language settings, it may take a few moments for the display to actually change.

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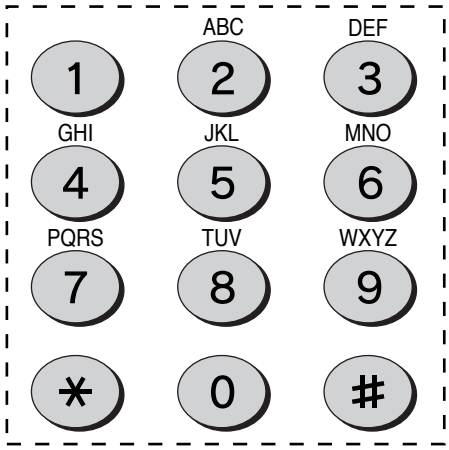
How to Enter Characters

You can enter letters with the number keys. Letters are marked above each of the number keys "**2**" through "**9**". To enter a letter, press the appropriate key repeatedly until the desired letter appears (the number of the key appears first, followed by letters in the order marked above the key). The keys used for entering characters are shown below.



- To enter two characters in succession which require using the same key, press the **right arrow** (►) key once after entering the first character, and then enter the second character.

- To change one individual character to another, move the cursor to the character you want to change and enter the new one. The new character will replace the old one.

- Symbols can also be entered by pressing the "**#**" and "*****" keys:

#→ ←*
. / ! " # $ % & ' ( ) * + , - : ; < = > ? @ [¥] ^ _ ` {|} → ←
Å Ä Æ Ø Ö Ü Ñ ß Ó Ú

- Pressing the "1" key on the number keypad enters a space.

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Entering Your Name and Fax Number

Note: *You can view all of the items in the menu display by pressing the **FUNCTION** key, then using the **left and right arrow** (◄ ►) keys to scroll through the function list. Pressing the **ENTER** key chooses the displayed function. Procedures for inputting various items (name, telephone number, date, etc.) are given as follows.*

To have your name and fax number printed at the top of every page you transmit, program them by pressing the operation panel keys as shown below.

- If you enter an incorrect character, press the **left arrow (◄)** key to move the cursor back to the mistake, then enter the correct character. (To move the cursor forward, press the **right arrow** (►) key.)

Use the following procedure to enter your name and fax number:

Step	Press these keys	Comments
1	FUNCTION, DEF 3	"ENTRY MODE" will appear in the display.
2	DEF 3	"ENTER YOUR FAX #" will appear in the display.
3	1, TUV 8, 0, 0, ABC 2, DEF 3, PQRS 7, GHI 4, ABC 2, PQRS 7, PQRS 7 (example: 18002374277)	Enter your own fax number (maximum 20 digits) by pressing the number keys. To insert a space between digits, press the "✳" key. To insert a "+", press the "#" key.
4	ENTER	"ENTER YOUR NAME" will appear in the display.
5	PQRS 7 ×5, GHI 4 ×3, ABC 2 ×2, PQRS 7 ×4, ►, PQRS 7 ×2 (example: SHARP)	Enter your name by pressing the appropriate number keys as shown on the left. Press each key repeatedly until the desired letter appears in the display (maximum of 24 characters). To enter a space, press the **1** key twice. To switch between lower case and capital letters, press the **REDIAL PAUSE** key once.
6	ENTER	"STORED" will appear in the display.
7	STOP, STOP	Press the **STOP** key twice to exit.

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Setting the Date and Time

The date and time that appear in the display are printed at the top of each page you transmit. Set the date and time by pressing the keys on the operation panel as shown below. To correct a mistake, press the **STOP** key to move the cursor back to the mistake, and then enter the correct number.

Note: *The machine supports the year 2000. To program such a date, enter the last two digits; for example, the year 2000 is programmed by entering "00".*

Use the following procedure to set the date and time:

Step	Press these keys	Comments
1	FUNCTION, DEF 3	"ENTRY MODE" will appear in the display.
2	ABC 2	"ENTER YEAR" will appear in the display.
3	0, 0 (example: 2000)	Enter the last two digits of the year. "ENTER MONTH" will appear in the display.
4	0, PQRS 7 (example: July)	Enter the month (2 digits: "01" for January, "02" for February, "12" for December, etc.). "ENTER DATE" will appear in the display.
5	0, JKL 5 (example: the fifth)	Enter the day of the month ("01" to "31"). "PRESS ENTER KEY" will appear in the display.
6	ENTER	"ENTER TIME" will appear in the display.
7	0, DEF 3	Enter the hour (2 digits: "01" to "12").
8	ABC 2, 0	Enter the minute (2 digits: "00" to "59").
9	ENTER	The clock starts when you press this button. "STORED" will appear in the display.
10	STOP, STOP	Press the **STOP** key twice to exit.

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Auto Summer Time Setting

The machine can be set to adjust to time changes during the year, so that its internal clock and all susequent notations of time (fax headers, programmed times, etc.) are automatically adjusted. When the Auto Summer Time Setting in on, the adjustments take place as shown below:

On the last Sunday of every March: 02:00 → 03:00
On the last Sunday of every October: 03:00 → 02:00

Use the procedure below to program the Auto Summer Time Setting:

Step	Press these keys	Comments
1	FUNCTION, DEF 3	"ENTRY MODE" will appear in the display.
2	JKL 5	"AUTO SUMMER TIME" will appear in the display.
3	1 or ABC 2	Press **1** to turn the Auto Summer Time Setting on, or **2** to turn it off.
4	STOP, STOP	Press the **STOP** key twice to exit.

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Selecting the Reception Mode

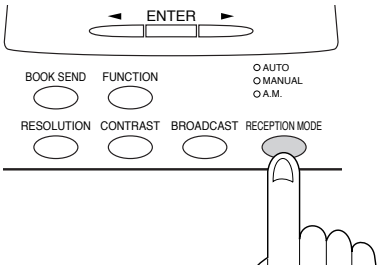
Your machine has three modes for receiving incoming calls and faxes:

- **AUTO mode:**
  Select this mode when you only want to receive faxes on your telephone line. The machine will automatically answer all calls and receive incoming faxes.

- **MANUAL mode:**
  This is the most convenient mode for receiving phone calls if you have an extension phone. To have true manual mode, the machine must be set to not answer while in MANUAL mode (see "Setting the Number of Rings for Manual Reception" on the next page). You can also receive faxes; however, all calls must first be answered by picking up the receiver on the extension phone or telephone connected to the same line.

- **A.M. mode:**
  Select this mode when an answering machine is connected to the machine and you want the answering machine to answer all calls. This allows you to receive both voice messages and faxes while you are out.

To set the reception mode, press the **RECEPTION MODE** key until the light next to the desired mode comes on.



For more information on reception modes, refer to Chapter 8.

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Setting the Number of Rings for Auto Reception

You can set the number of rings before the machine answers in AUTO mode using the procedure below.

Factory setting: 2

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	0, ABC 2	"# OF RINGS AUTO" will appear in the display.
3	0 to WXYZ 9	Select the number of rings you would like to use (**0** to **9**).
4	ENTER	"STORED" will appear in the display.
5	STOP, STOP	Press the **STOP** key twice to exit.

Note: *If an external telephone is connected, the external telephone will ring one time when auto reception is set to 0 rings.*

Setting the Number of Rings for Manual Reception

The number of rings before the machine answers in MANUAL mode can also be set. If you do not want the machine to answer at all in MANUAL Mode, select "0" in Step 3 below.

Factory setting: 0 (OFF)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	0, DEF 3	"# OF RINGS MAN." will appear in the display.
3	0 to WXYZ 9	Select the number of rings you would like to use (**0** to **9**).
4	ENTER	"STORED" will appear in the display.
5	STOP, STOP	Press the **STOP** key twice to exit.

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Setting the Number of Recall Times

You can select the number of times the machine will try to recall a busy number. If you enter 00, the machine will not try to recall. Follow this procedure:

Factory setting: 02

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	0, PQRS 7	"RECALL TIMES" will appear in the display.
3	0 0 to 0 WXYZ 9	Enter the number of recall times ("**00**" to "**09**").
4	ENTER	"STORED" will appear in the display.
5	STOP, STOP	Press the **STOP** key twice to exit.

Setting the Recall Interval

The recall interval, the time the machine waits in between attempts to re-send a fax to a busy number, can be set from 1 to 15 minutes. Follow this procedure:

Factory setting: 05 (5 minutes)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	0, TUV 8	"RECALL INTERVAL" will appear in the display.
3	0 to 1 JKL 5	Enter the recall interval ("**01**" to "**15**").
4	ENTER	"STORED" will appear in the display.
5	STOP, STOP	Press the **STOP** key twice to exit.

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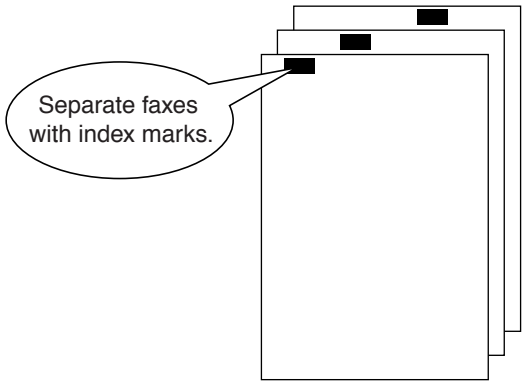
Setting the Index Function

You can print an index mark along the edge of the pages in each job. This makes it easy to separate different jobs on the output tray.



6

Use the following procedure to set the index function.

Factory setting: 2 (OFF)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	1, WXYZ 9	"BATCH INDEXING" will appear in the display.
3	1 **or** ABC 2	Press **1** to turn on the index function, or **2** to turn it off.
4	STOP, STOP	Press the **STOP** key twice to exit.

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Setting Fine Resolution Priority

For most faxing jobs, you will most likely want to specify the resolution. However, you can also set a default resolution when no setting is made using the **RESOLUTION** key. When Fine Resolution Priority is turned on, all faxes will be sent in Fine Mode unless otherwise specified. To turn on this function, follow the procedure below:

Factory setting: 2 (OFF)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	0, 1	"FINE PRIORITY" will appear in the display.
3	1 or ABC 2	Press **1** to turn Fine Resolution Priority on, or **2** to turn it off.
4	STOP, STOP	Press the **STOP** key twice to exit.

Setting Up the Machine for Use with a PC Modem

The machine is set to automatically begin reception if you pick up from an extension telephone and the machine detects a fax tone. However, if you are using a modem on the same line, you must deactivate this function: otherwise the machine will mistakenly attempt to receive the transmission from your computer. To turn off the Fax Signal Receive function, follow the procedure below.

Note: *If you turn off the Fax Signal Receive function, be sure to activate the Remote Reception function. See "Using the Remote Reception Function" on the next page for details on how to do this.*

Factory setting: 1 (ON)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	1, 1	"FAX SIGNAL RCV." will appear in the display.
3	1 or ABC 2	Press **1** to turn Fax Signal Receive on, or **2** to turn it off.
4	STOP, STOP	Press the **STOP** key twice to exit.

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Using the Remote Reception Function

The machine's Remote Reception feature is designed to allow you to activate fax reception from an extension telephone or a telephone directly connected to the machine. The Remote Reception function operates even when the FAX Signal Receive function is turned off. See "Setting Up the Machine for Use with a PC Modem" on the previous page. When you hear the fax tone, simply press the one-digit Fax Remote Number (Factory setting: 5) and ✳ ✳. Follow the two procedures below to use this feature.

Notes:

- *If originals are set in the SPF, the machine does not answer when you press the Fax Remote Number and ✳ ✳. However, if the originals are set in the SPF as part of a copy job in progress, the mechine answers when you press the Fax Remote Number and ✳ ✳.*
- *If you want to receive a fax while you are on an extension telephone, when you hear a fax tone, press the one-digit Fax Remote Number and ✳ ✳. To ensure proper fax reception, hang up the extension phone only after you have confirmed that fax reception has begun. Furthermore, there is no sound when fax reception begins.*

Turning on Remote Reception:

Factory setting: 1 (ON)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	1, 0	"REMOTE RECEPTION" will appear in the display.
3	1 or ABC 2	Press **1** to turn Remote Reception on, or **2** to turn it off.
4	STOP, STOP	Press the **STOP** key twice to exit.

Setting a Fax Remote Number:

Factory setting: 5

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	0, WXYZ 9	"FAX REMOTE NUMBER" will appear in the display.
3	0, WXYZ 9	Enter the number you would like to use as the Fax Remote Number.

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4	ENTER		"STORED" will appear in the display.
5	STOP	STOP	Press the **STOP** key twice to exit.

PBX Setting

The machine is connected to a PBX, you can program machine to access automatically public line outside PBX.

Factory setting: 2 (OFF)

Step	Press these keys		Comments
1	FUNCTION	GHI 4	"OPTION SETTING" will appear in the display.
2	ABC 2	0	"PBX SETTING" will appear in the display.
3	1 **or**	ABC 2	Press **1** (YES) if the machine is connected to a PBX. Press **2** (NO) if the machine is connected to a public line.
4	1 **or**	ABC 2	"PBX SELECT" will appear in the display. This parameter permits to define how connection of a call from a PBX to an external line is made. For more details about this mode, see operation manual of your PBX or contact support department of PBX dealer. Press **1** for "FLASH" mode. Press **2** for "ID PBX" mode.
5	0	WXYZ 9	"PBX ID CODE" will appear in the display. Enter identification number of your PBX (max. 3 digits)
6	ENTER		Press ENTER key to continue.
7	STOP	STOP	Press the STOP key twice to exit.

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Storing Numbers for Automatic Dialing

Automatic Dialing is a quick and convenient way to dial by using only a Rapid key (Rapid Key Dialing), or pressing the **SPEED/SEARCH** key and select the SPEED and entering a two digit number (Speed Dialing).
To use Automatic Dialing, you must first store the full number. The way you store it depends on whether you want to use it for Rapid Key Dialing or Speed Dialing:

Note:
If the machine is connected to a PBX, the numbers dialed in automatic dialing are automatically transferred to the public line (you should not enter access code, etc.) in order to obtain the external line in case if registred numbers. In case of an internal number of the PBX, push the SPEAKER key in order to insert the R character at the beginning of the number (when tou are in step 6, as shown below) ; this will cancel the automatic dialing of the access code?

Storing numbers

Use the following procedure to store numbers for Rapid Key Dialing or Speed Dialing:

6

Step	Press these keys	Comments
1	FUNCTION, DEF 3	"ENTRY MODE" will appear in the display.
2	1	"FAX NUMBER MODE" will appear in the display.
3	1	"FAX NUMBER SET" will appear in the display.
4	01 (example)	To store a Rapid key number, press a Rapid key. To store a Speed Dial number, press two number keys ("00" to "99"). "PRESS ENTER KEY" will appear in the display.
5	ENTER	"ENTER FAX NUMBER" will appear in the display.
6	ABC 2, 0, 1, JKL 5, ABC 2, WXYZ 9, TUV 8, ABC 2, 0, 0 (example: 2015298200)	Enter the fax number (maximum of 20 digits including pauses) using the number keys.
7	ENTER	"ENTER NAME" will appear in the display.
8	JKL 5, ABC 2, GHI 4 ... (example)	Enter the name of the location or party by pressing number keys as described in "How to Enter Characters " in this chapter (max. of 20 characters). If you do not want to enter a name, skip this step.
9	ENTER	"CHAIN DIAL" will appear in the display.

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10	1 **or** ABC 2	Press "**1**" if you want to specify the number as a Chain Dialing number (see "Chain Dialing for Long Numbers" in this section). Otherwise, press "**2**".
11	**Step 4 or** STOP . . . STOP	Return to Step 4 to store another number, or press the **STOP** key a number of times until you exit. If the number is a Rapid key number, you can write the name on the label above the appropriate Rapid key.

Note: *You may need to add a pause between certain digits in the number to allow time for connection. For example, if you are on a PBX telephone system that requires an access number, such as "9", to be dialed to access an outside line, you will need to enter a pause between the access number and the fax number of the other party. Pauses are entered by pressing the* ***REDIAL/PAUSE*** *key (2 seconds per pause). If necessary, several pauses can be entered in a row.*

Use the following procedure to clear numbers:

Step	Press these keys	Comments
1	FUNCTION DEF 3	"ENTRY MODE" will appear in the display.
2	1	"FAX NUMBER MODE" will appear in the display.
3	ABC 2	Select CLEAR. "FAX NUMBER CLEAR" will appear in the display.
4	01 (example)	To clear a Rapid key number, press the appropriate Rapid key. To clear a Speed Dial number, enter the 2-digit number with the number keys. "PRESS ENTER KEY" will appear in the display. If there is no number stored under that Rapid key or Speed Dial number, "NO NUMBER STORED" will appear in the display.
5	ENTER	"CLEARED" will appear in the display.
6	**Step 4 or** STOP . . . STOP	Return to Step 4 to clear another number, or press the **STOP** key a number of times until you exit.

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Chain Dialing for Long Numbers

The maximum number of digits which may be entered when storing a fax number is 20. If you need to store a number which is longer than 20 digits, use Chain Dialing.

Chain Dialing allows you to combine two or more Automatic Dialing numbers, or use an Automatic Dialing number followed by additional digits entered manually with the number keys, to dial a single number. In addition to being convenient for storing long numbers, it allows you to store an area code or access code as an Automatic Dialing number.

For example, to store a 36 digit number for Automatic Dialing, you must break it into two parts:

1. Store the first 20 digits into one Speed Dial number (“01”, for example) using the storing procedure described in the preceding section, and press “1” in Step 10 of that procedure to specify it as a Chain Dialing number (this tells the machine to wait for the remainder of the telephone number when dialing).

2. Store the remaining 16 digits into a separate Speed Dial number (“02”, for example), and this time press “2” in Step 10 of the storing procedure to specify that it is not a Chain Dial number (this tells the machine that the final part of the number has been dialed).

In this way, you specify all parts of the number except the last as a Chain Dial number.

Note: *The maximum number of digits that can be dialed at one time by Chain Dialing is 50.*

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Storing Numbers Under Group Keys

Group keys allow you to dial a group of fax numbers by simply pressing the appropriate Group key once. They are convenient for the Broadcasting function, which is used to transmit an original to a group of fax machines.

All Rapid keys can be programmed as Group keys. To program or clear a group key, follow the steps below. Note that one key cannot be programmed as both a Rapid key and a Group key at the same time.

- Up to 50 fax numbers can be stored in one Group key.
- Only Rapid keys and Speed Dial numbers can be stored in a Group key. No full numbers can be stored.

Use the following procedure to store numbers under Group keys:

Step	Press these keys	Comments
1	FUNCTION, JKL 5	"GROUP ENTRY MODE" will appear in the display.
2	1 or ABC 2	Press "**1**" (SET) to program a Group key, or "**2**" (CLEAR) to clear a Group key.
3	01 (example)	**Setting:** Press the Rapid key you wish to use as a Group key . "GROUP #=XX" will appear in the display, followed by "DIAL #=" **Clearing:** Press the Group key you wish to clear, and then go to Step 7.
4	02 ... 09, 0 ABC 2 ... ABC 2 ABC 2 (example)	Enter fax numbers using one or both of the following methods: • Press one or more Rapid keys. • Enter one or more Speed Dial numbers with the number keys.

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5	ENTER	"ENTER GROUP NAME" will appear in the display.
6	1 (example)	Enter the name of the group by pressing number keys as described in "How to Enter Characters" in this chapter (max. of 20 characters). If you do not want to enter a name, skip this step.
7	ENTER	**Setting:** "GROUP SET" will appear in the display. **Clearing:** "GROUP #=XX CLEARED" will appear in the display.
8	**Step 3 or** STOP . . . STOP	Return to Step 3 to program/clear another Group key, or press the **STOP** key a number of times until you exit.

Note: *If you have to change a number used in a Group key, you must delete that Group key first.*

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Using the Machine with an Answering Machine

Quiet Detect Time

Quiet Detect Time is the function that enables the machine to be used along with an answering machine for both phone messages and faxes. After the answering machine has answered, any duration of silence longer than a certain threshold time will prompt the machine to take over the line and prepare to receive a fax. The Quiet Detect Time can be set from 00 to 10 seconds, following the procedure below.

Factory setting: 05

Step	Press these keys	Comments
1	FUNCTION, TUV 8	"A.M. MODE" will appear in the display.
2	1	"QUIET DETECT TIME" will appear in the display.
3	0 0 to 1 0	Enter the Quiet Detect Time in seconds, from **00** to **10**. (Setting "00" turns off Quiet Detect Time)
4	ENTER	"STORED" will appear in the display.
5	STOP, STOP	Press the **STOP** key twice to exit.

Notes:

- *The machine has been set at the factory for a Quiet Detect Time of 5 seconds, which gives the best performance for most answering machines. However, you may have to adjust the Quiet Detect Time depending on your answering machine's disconnect time, the time before the machine disconnects the line after a period of silence. If your machine has a short disconnect time, you may have to shorten the Quiet Detect Time. However, if the machine is interrupting callers in the middle of messages, you should set a longer Quiet Detect Time.*
- *If there is a pause at the end of your answering machine message, make sure that the Quiet Detect Time is longer than this pause.*
- *Setting Quiet Detect Time to 00 turns the function off. However, the machine will not be able to receive faxes sent using manual dialing (picking up the receiver, dialing the number, and pressing the **FAX START** key when the fax tone is heard).*

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If Quiet Detect Time is not working properly...

With some answering machines, there is simply no Quiet Detect Time that will allow both reception of faxes and uninterrupted voice messages. Even in this case, however, you can set up the machine to receive both phone and fax messages from callers on touch-tone lines. Follow this procedure:

1. Set the Quiet Detect Time to 00.

2. Using the Remote Reception Number (factory set to 5) to start fax reception, change your answering machine message to include the following information. "If you want to send a fax press 5 and then press the (✳) key twice, after you hear the fax tone press your **FAX START** key".

6 Answering Machine Backup

There may be times when the tape on your answering machine becomes full, or when the answering machine itself malfunctions. It is still possible to receive faxes even under these conditions, however, by turning on the Auto Receive function. The machine will automatically answer all calls after five rings. To use this function, follow the procedure below.

Factory setting: 2 (OFF)

Step	Press these keys	Comments
1	FUNCTION, TUV 8	"A.M. MODE" will appear in the display.
2	ABC 2	"SELECT AUTO RECEIVE" will appear in the display.
3	1 **or** ABC 2	Press **1** to turn Auto Receive on, or **2** to turn it off.
4	STOP, STOP	Press the **STOP** key twice to exit.

Note: *If you are using Auto Receive, make sure that your answering machine is set to answer on four rings or less. Otherwise, the machine will take over all calls, preventing callers from leaving voice messages.*

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7. CHOOSING SUITABLE MEDIA

Originals Suitable for Faxing

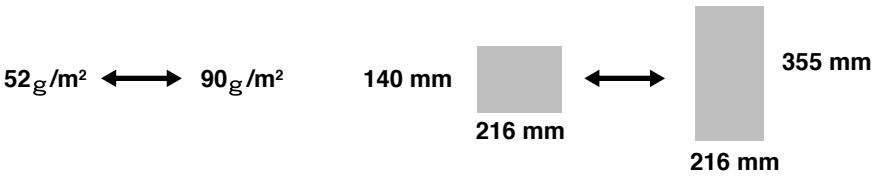
Make sure that the originals you want to fax meet specifications and guidelines listed in this section.

Size and Weight

The size and weight of originals that you can load in the SPF (Single Pass Feeder) depend on whether you load one sheet at a time or several sheets at once.

One sheet at a time: 52g/m² ⟷ 130g/m²
(when using the SPF or when using the original table)

Several sheets at once:
(when using the SPF)



Note: *When feeding in a long original, grasp the original at the edges to guide it into the machine.*

Note: *Whether you are using the faxing functions of the machine, your originals are, in effect, being scanned through the machine. The area of an original that is scanned by the machine while faxing is slightly smaller than the actual original size. Any text or graphics outside this area will not be scanned.*

Scanning length: The length of the sheet minus 4 mm from both the top and bottom edges.

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Unsuitable Originals

General guidelines:

- All clips, staples, and pins should be removed from originals before they are used. If these are not removed, they may damage the machine.
- Ink, glue, and correction fluid on originals must be completely dry before using the originals with the machine.
- Originals that are in some way dangerous to the internal mechanisms of the machine should not be used.
- Faxing originals that have print in yellow,yellowish-green, or light blue, may not be picked up by the scanner and should not be transmitted.

The following kinds of originals should not be used:

- Originals with a glossy coating
- Originals with static electricity
- Originals with tears, folds, or curls
- Originals that have become stuck together and cannot be easily separated
- Originals with holes, windows, or perforations
- Transparency films, tracing paper, or other transparencies
- Originals with plastic or metallic coatings

Notes:

• Sharp does not accept any responsibility for the loss or damage of originals.
• It is a good idea to copy valuable originals on a flat-bed copier before using them with the machine.
• It is recommended to copy valuable originals on the original table first.

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8. HOW TO USE THE FAX FUNCTION

The standalone fax component of your machine offers a range of sophisticated features that allow you to control image quality, reception mode, broadcasting, polling, and transmission priorities. Functions such as sending originals from memory and substituting reception into memory are greatly enhanced by the large memory capacity.

Sending Originals

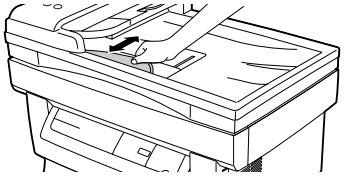
Setting the Original

This section describes setting originals in the SPF or on the original table.

When Using the SPF:

1 **Confirm that there are no originals on the original table and that copying is not in progress, then gently close the original cover.**

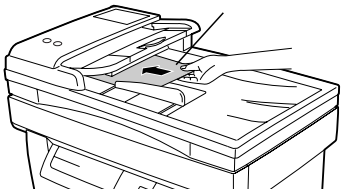
2 **Adjust the original guide to the size of originals.**

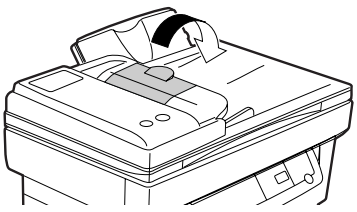


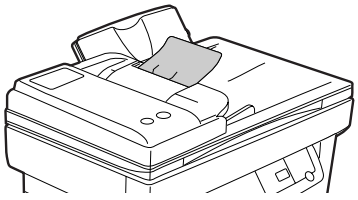
3 **Place the original face down and push it gently into the original feeder tray. Feed the original narrow side into the slot.**

When the original is long, extend the tray of the exit area.

Original face down







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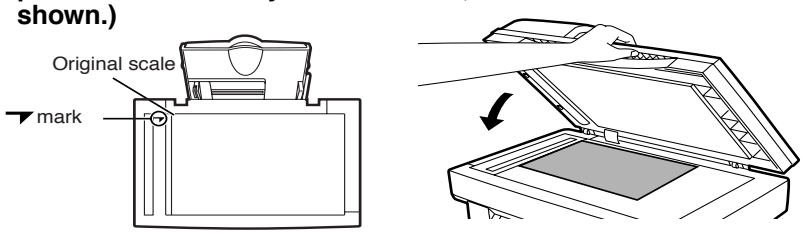
4 There are two ways to send the fax:

- To scan the original into memory, then dial and transmit, continue with the "Dialing and Transmitting" section.
- To dial and transmit the original directly without first scanning it into memory, press the **ORIGINAL** key. "DIRECT SEND" will appear in the display. Continue with the "Dialing and Transmitting" section.

When placing the Original on the Table:

1 Confirm that there are no originals in the SPF, and open the original cover.

2 Place the original face down on the original table. Align the original according to the original scale in the illustration below. (Make sure the upper left corner of the original is set to the position indicated by the "►" mark, as shown.)



3 Gently close the original cover.

Note: *When using the original table, do not set originals in the SPF.*

4 Press the BOOK SEND key.

- You can now make resolution or contrast settings as described in the next section.

5 Press the BOOK SEND key to scan the page into memory. If you have more than one original to read into memory, place the next page, and press the BOOK SEND key to read each page.

- To scan the original into memory, then dial and transmit, continue with the "Dialing and Transmitting" section.

Optional Transmission Settings

There are several transmission settings that you can make before dialing and transmitting a original.

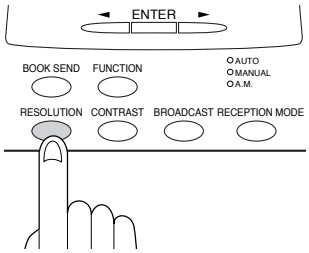
Resolution

Your fax has four resolution settings:

- **HALF TONE**
  Use HALF TONE for photographs and illustrations. The original will be reproduced in 256 shades of gray.
- **STANDARD**
  Use STANDARD for ordinary originals. This setting gives you the fastest transmission.
- **FINE**
  Use FINE for improved reproduction, especially with originals containing small letters or fine drawings.
- **S. FINE**
  Use SUPER FINE when you need the highest quality of reproduction.

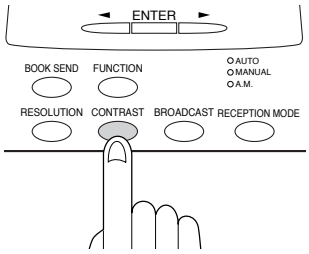
In order to transmit with FINE or SUPER FINE resolution, the receiving fax machine must also have that resolution. If it doesn't, the next best available setting will be used.

If you do not change the setting, the original will automatically be sent in STANDARD mode.



Contrast

The fax automatically controls the contrast, but you can also control it manually. To do this, press the **CONTRAST** key one or more times until the desired contrast settings appear in the display. The three contrast levels are light, medium, and dark.



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Cover Sheet

You can have your fax generate a cover sheet and send it as the last page of the transmission. The cover sheet includes the date and time, the sender's name and number, and the receiver's name and number if an automatic dialing number is used. The total number of pages sent is indicated on the bottom.

To include a cover sheet with a transmission, follow these steps:

Factory setting: 2 (OFF)

Step	Press these keys	Comments
1	FUNCTION, PQRS 7	"COVER SHEET MODE" will appear in the display.
2	1, ABC 2	Press "**1**" to turn the cover sheet function on, or "**2**" to turn it off.
3	ABC 2 (example: URGENT)	If you pressed "**1**" in the previous step, select a message by entering a number from 2 to 6 as shown below, or enter 1 if you do not want to include a message. 1: NO MESSAGE 2: URGENT 3: IMPORTANT 4: CONFIDENTIAL 5: PLS. DISTRIBUTE 6: PLS. CALL BACK

Note: *The receiver's name must be programmed in either the Rapid Key or Speed Dial function for it to appear on the Cover Sheet.*

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Auto Cover Sheet

If you want to automatically send a cover sheet with each fax, use the Auto Cover Sheet function. This function differs from the Cover Sheet function in two ways. First, the Cover Sheet function must be programmed before each fax transmission is sent. Second, no message is included on the cover sheet generated by the Auto Cover Sheet function. Please note that the Cover Sheet function is considered the primary cover sheet of the two cover sheets generated by the machine. An ideal method is to use both functions together, by leaving the Auto Cover Sheet function on, you can decide to use the Cover Sheet function for attaching a message before sending your fax.

Use the procedure below to turn the Auto Cover Sheet function on or off:

Factory setting: 2 (OFF)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	1, ABC 2	"AUTO COVER SHEET" will appear in the display.
3	1 **or** ABC 2	Press **1** to turn the function on, or **2** to turn it off.
4	STOP, STOP	Press the **STOP** key twice to exit.

Note: *The receiver's name must be programmed in either the Rapid Key or Speed Dial function for it to appear on the Auto Cover Sheet.*

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Reverse Sending

The SPF on this machine scans the original from the last page. For the machine to send the originals starting from the first page, Reverse Sending is initially set to “ON”. This function works only when the original is sent from memory.

Note: *In Reverse Sending mode, when you send a large number of originals and the memory becomes full, the originals already stored will be cancelled. In this kind of situation, it is recommended you send the original directly.*

Use the procedure below to turn the Reverse Sending function on or off.

Factory setting: 1 (ON)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	“OPTION SETTING” will appear in the display.
2	ABC 2, 0	“REVERSE SENDING” will appear in the display.
3	1 **or** ABC 2	Press **1** to turn the function on, or **2** to turn it off.
4	STOP, STOP	Press the **STOP** key twice to exit.

Note: *If you are adding to a group of previously scanned originals (for example for memory polling), keep the Reverse Sending setting the same as it was for the previously scanned originals. If you change the setting, the sending order of the originals will change during the transmission. (According to the setting in effect for each scan.)*

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Dialing and Transmitting

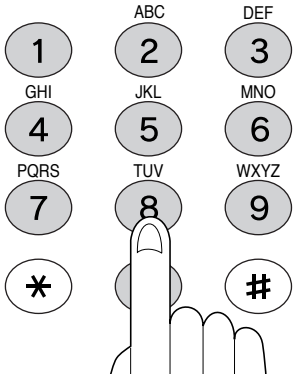
Once you have set the original (either in the SPF or on the original table), and have selected the desired transmission settings, you are ready to dial the number of the receiving fax machine and transmit the original. You can choose from one of the several ways of dialing that best suit your needs.

Direct Keypad Dialing

If the number of the fax you want to reach is not a Rapid key or Speed Dial number, use Direct Keypad Dialing to manually enter it using the following procedure:

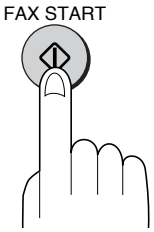
1 **Confirm that you have correctly set the original in the SPF or on the original table. (See "Setting the Original" in this chapter)**

2 **Enter the number of the fax machine you want to send to by pressing the number keys.**



3 **Check the display. If the number of the receiving machine is shown correctly, press the FAX START key.**

- If it is not correct, press the **STOP** key to backspace and clear one digit at a time, and then enter the correct number.



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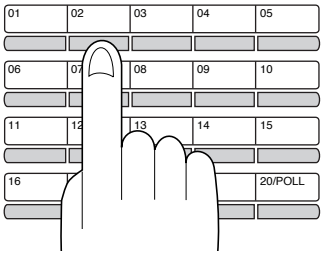
Rapid Key Dialing

If the number you want to dial has been stored as a Rapid key number (see "Storing Numbers for Automatic Dialing" in Chapter 6), you can dial it by pressing the appropriate Rapid key as shown:

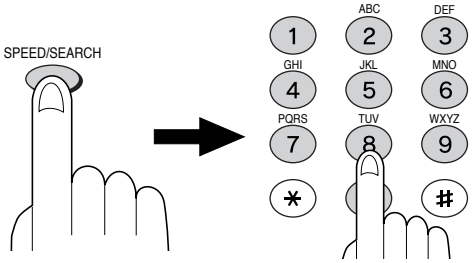


8

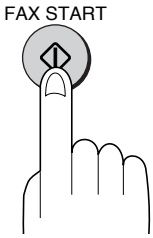
Speed Dialing

If the number you want to dial has been stored as a Speed Dial number, you can dial it using the following procedure:

1 Press the SPEED/ SEARCH key and then enter the 2-digit number by pressing the number keys (see "Storing Numbers for Automatic Dialing" in Chapter 6).



2 Check the display. If the name or number shown is correct, press the FAX START key. (If it is not correct, press the STOP key and then repeat Step 1.)



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Chain Dialing

The Chain Dialing function allows you to combine an Automatic Dialing number set for Chain Dialing (see "Storing Numbers for Automatic Dialing" in Chapter 2) with another Automatic Dialing number or digits entered manually with the number keys to dial one phone number up to 50 digits long. The following are some examples of how this can be done:

- Enter Speed Dial numbers that you have programmed for Chain Dialing. For example, if you have stored the first part of a fax number in Speed Dial number 22 and the second half in Speed Dial number 27, press the **SPEED/SEARCH** key and "22", then the **SPEED/SEARCH** key and "27". Then press the **FAX START** key to begin transmission.
- Press a Rapid key that is set for Chain Dialing and then manually enter a number by pressing the appropriate number keys. Press the **FAX START** key after the final number key to begin transmission. (You can use this method, for example, when you have stored a long distance access code into a Rapid key, and want to dial this in combination with a number that is not stored as an automatic dialing number.)

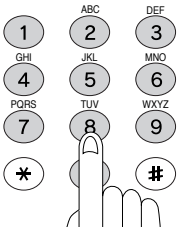
Normal Dialing Using the SPEAKER Key

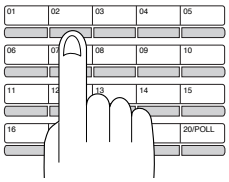
To dial using the **SPEAKER**, press the **SPEAKER** key and dial using the numeric keys. You can hear the line and fax tones from the other machine through the speaker, allowing you to confirm the response of the other machine.

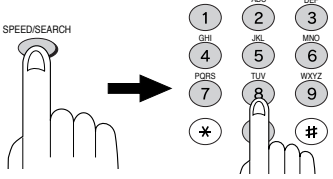
1 **Set the original in the SPF and press the SPEAKER key. (Refer to "Setting the Document" earlier in this chapter for details.)**

- To adjust the volume, press the left and right arrow keys (◄►).

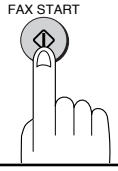
2 **Dial the number by pressing the number keys, pressing a Rapid Dial key, or entering a Speed Dial number.**







3 **When you hear the fax reception tone of the other machine, press the FAX START key.**



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Using the SEARCH Key

If you do not remember the Rapid key or Speed Dial number in which you have stored a particular fax number, you can search for the number by following the steps below:

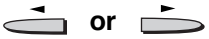
1 **Press the SPEED/ SEARCH key twice.**

2 **Enter the first letter of the stored name by pressing the appropriate number key (the key below the marked letter) until the letter appears in the display. If the name begins with a special character or number, press "1".**

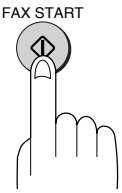
(example: "B")

- If you do not remember the first letter, go to Step 3 and scroll through the list from the beginning.

3 **Press the left and right arrow (◄►) keys to scroll through the names (numbers if you pressed "0"). Stop when the desired name appears in the display.**

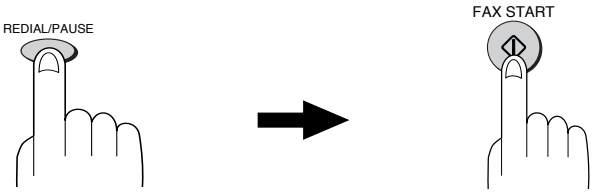


4 **Press the FAX START key. The original will be automatically transmitted once the connection is made.**



Redialing

You can send a fax to the number you last dialed by pressing the **REDIAL/ PAUSE** key, followed by the **FAX START** key or Rapid key **20/POLL**.



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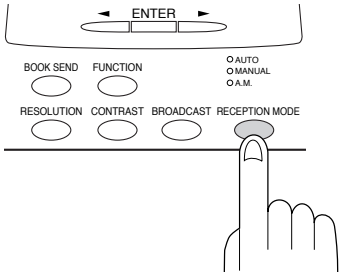
Receiving Faxes

You can set the machine to one of three modes of reception, **AUTO**, **MANUAL**, or **A.M.** (Answering Machine). To select the reception mode, press the **RECEPTION MODE** key until the light next to the desired mode comes on.



Using AUTO Mode

Select **AUTO** mode when you only want to receive faxes on your telephone line. The machine will automatically answer all calls and receive incoming faxes.

8

Using MANUAL Mode

MANUAL is the most convenient mode for receiving phone calls if you have an extension phone. To have true manual mode, the machine must be set to not answer while in MANUAL mode (see “Setting the Number of Rings for Manual Reception” in Chapter 6). You can also receive faxes; however, all calls must first be answered by picking up the receiver on the extension phone or telephone connected to the same line.

Using A.M. Mode

Select this mode when an answering machine is connected to the machine and you want the answering machine to answer all calls. This allows you to receive both voice messages and faxes when you are out.

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Optional Reception Settings

The machine has various optional settings for the reception of faxes.

Receive Reduce

You may on occasion receive faxes that are larger than the paper loaded in the machine. To ensure that you do not lose any part of the original, you should use the Receive Reduce function, which scales the fax to the printing paper size. To use this feature, follow this procedure:

Factory setting: 1 (auto reduction)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	1, DEF 3	"RECEIVE REDUCE" will appear in the display.
3	1 or ABC 2	Select one of the reduction settings listed below by pushing the corresponding number key: **1** (AUTO REDUCTION): Automatic reduction depending on size of original and printing paper. **2** (NO REDUCTION): No reduction "STORED" will appear in the display.
4	STOP, STOP	Press the **STOP** key twice to exit.

Note: *If you select 2 (NO REDUCTION) large faxes will be printed on two sheets of paper.*

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When using manual sending and receiving

You need to use the **SPEAKER** key or an extension telephone to perform manual sending and receiving. For information about connecting an extension telephone, refer to “Final Preparations” in Chapter 1.

1 When the extension telephone rings, pick up the handset and converse.

- If the **SPEAKER** key is used to answer a call you cannot converse.

Note: *You cannot use the **SPEAKER** key for fax transmission/reception while copying is in progress.*

2 When the handset is off hook or the SPEAKER key is used, press the START key.

- When there are originals in the SPF, the machine senses the presence of the originals and displays the message.

3 Press “1” to send. Press “2” to receive.

```
MANUAL MODE
1:SEND  2:RECEIVE
```


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Special Functions

Memory

Your machine has a memory area that can be used to store both incoming and outgoing originals.

- Approximately 120 pages of average content can be held in memory for transmission. Less can be held if any of the pages were scanned using fine or superfine resolution.

Memory Backup

- The machine uses a lithium-ion battery to keep automatic dialing numbers and other programmed data in memory when the power is turned off (when the machine is unplugged). Battery power is consumed primarily when the power is turned off. With the power kept continuously off, the life of the battery is about 5 years. If the battery life expires, have your dealer or retailer replace it. Do not try to replace it yourself.

8

Substitute Reception into Memory

This is a back-up function that is automatically activated if your fax runs out of paper, the TD cartridge needs replacement, or the paper jams.

The message “FAX RCVD IN MEMORY” will only appear in the display at the time the original is initially received into memory. After reception is complete, one of the following messages, “PAPER OUT(XXX),” “CAN NOT PRINT,” or “PAPER JAM” will appear in the display. When you add paper (and set the paper size), replace the TD cartridge, or clear the jam, the stored originals will automatically be printed out.

- If you received originals in memory because the fax ran out of paper, be sure to add paper which is the same size as the paper previously used. If not, the original print-out size may not match the size of the printing paper.

Caution!

- *If originals received in memory are lost due to a power failure or other interruption in the power supply, a POWER FAIL REPORT will be printed out when the power is restored. This gives available information about the faxes lost, including the fax numbers of the transmitting machines.*

Note: *Take care that the remaining memory does not become 1% or you cannot receive any more faxes.*

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Data Transfer

If there is a problem with the machine, you can use the Data Transfer function to have received faxes read into memory and then sent to a different fax machine for printing. This function is used when you cannot print received faxes, for example when the machine runs out of toner, a misfeed occurs.

Factory setting: 2

Step	Press these keys	Comments
1	FUNCTION 0	"RX DATA TRANSFER" will appear in the display.
2	ABC 2	"FAX NUMBER" will appear in the display.
3	1 TUV 8 0 0 ABC 2 DEF 3 PQRS 7 GHI 4 ABC 2 PQRS 7 TUV 8 (example: 18002374278)	Enter the transferring fax number (maximum 20 digits) by pressing the number keys.
4	ENTER	"RX DATA TRANSFER" will appear in the display.
5	1	"TRANSFER?" will appear in the display.
6	1 or ABC 2 STOP	If **1** is selected, the data held in memory is sent to the fax selected in step 3 above. If you press **2** and **STOP** key, the data is not sent.

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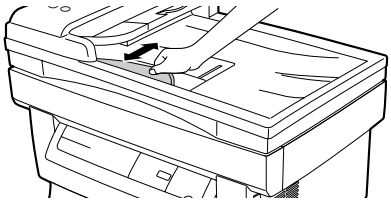
Transmission Reservation

When your fax is busy receiving an original or transmitting an original from memory, you can "reserve" a transmission by setting the original (either in the SPF or on the original table), reading it into memory, and entering the fax number. Once the current operation is completed, your fax will automatically dial the number and transmit the original saving you from having to wait.

When Using the SPF:

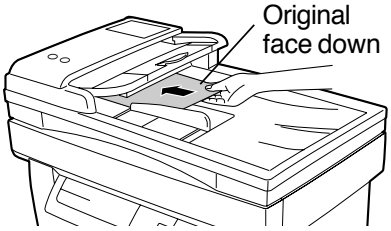
1 Confirm that there are no originals on the original table and that copying is not in progress, then gently close the original cover.

2 Adjust the original guide to the size of originals.



3 Place the original face down and push it gently into the original feeder tray. Feed the original narrow side into the slot.

- Adjust the resolution and/or contrast settings if desired.



4 Enter the number of the receiving machine using one of the following methods:

- Press a Rapid key.
- Press the **SPEED/SEARCH** key and enter a Speed Dial number.
- Enter a full number with the number keys.

(example)

5 Press the FAX START key if you entered a Speed Dial number or a full number

- The number will be dialed once the current operation is completed, and transmission will begin once the connection is made.

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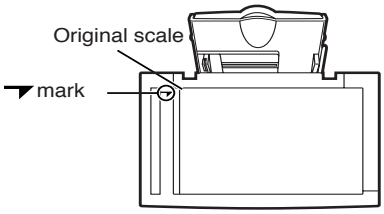
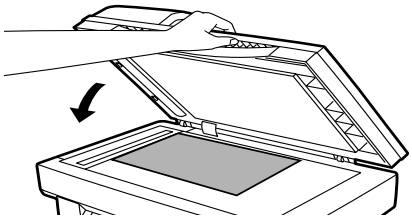
When using the original table:

1 **Confirm that there are no originals in the SPF, and that copying is not in progress, then open the document cover.**

2 **Place the original face down on the original table. Align the original according to the original scale in the illustration below.**
(Make sure the upper left corner of the original is set to the position indicated by the "►" mark, as shown.)





3 **Gently close the original cover.**

Note: *When using the original table, do not set originals in the SPF.*

4 **Press the BOOK SEND key.**
- Adjust the resolution and/or contrast settings if desired.

5 **Press the BOOK SEND key to scan the page into memory. If you have more than one sheet to read into memory, place the next page, and press the BOOK SEND key to read each page.**

6 **Continue with steps 4 and 5 in the previous section, "Using the SPF".**

Note: *If the original is removed from the original feeder tray after a transmission reservation is set, the reservation will be cancelled.*

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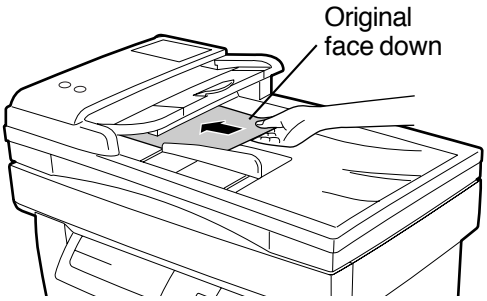
Broadcasting

This function allows you to send the same original to as many as 50 different locations with just one operation. Once the original is loaded, it is scanned and stored in memory. The fax numbers you have entered are then automatically dialed in succession, and the original is transmitted to each location.

- To enter the fax numbers of the receiving machines, you must use Rapid keys, Speed Dial numbers, or Group keys; no fax numbers can be entered manually.

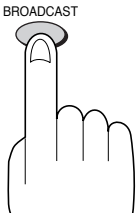
1 Place the original face down and push it gently into the original feeder tray.

- Adjust the resolution and/or contrast settings if desired.



8

2 Press the BROADCAST key.



3 Dial the numbers of the receiving machine using one or more of the following methods:

- Press one or more Rapid keys.
- Enter Speed Dial numbers with the number keys, for example Speed Dial numbers **01**, **02**, through to **09**.
- Press one or more Group keys.

(example)

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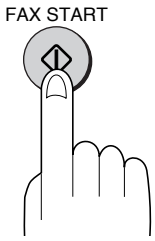
4 Press the FAX START key. Transmission will begin.



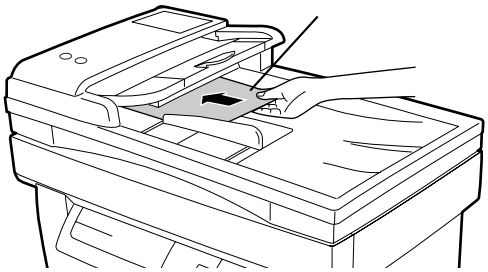
Broadcasting using a Group key

If the fax machines to which you want to broadcast have all been programmed into one Group key, you can perform the broadcasting operation using the following simplified procedure. Refer to "Storing Numbers Under Group Keys" in Chapter 6.

1 Place the original face down and push it gently into the original feeder tray.

- Adjust the resolution and/or contrast settings if desired.

Original face down



2 Press the appropriate Group key. Transmission will begin.

If the memory becomes full while the original is being scanned, "MEMORY FULL" will appear in the display.

- Press the **FAX START** key to transmit the pages that have been stored up to that point in memory.
- Press the **STOP** key to cancel the entire transmission.

19

(example)

Note: *In Reverse Sending mode, you must press the **STOP** key to cancel the entire transmission when "MEMORY FULL" appears in the display.*

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Polling

Polling allows you to request another fax machine to send a original to your fax machine. In other words, the receiving fax machine, not the transmitting fax machine, activates the transmission. You can use your fax to both poll and be polled by others.

Setting the Polling Key

To use the polling function, you must first set Rapid key 20/POLL for use as a polling key. This is done by following the procedure shown below.

- The polling key cannot be used for both Rapid Key Dialing and Polling. If it has already been programmed for Rapid Key Dialing, you must clear it first as described in "Storing Numbers for Automatic Dialing" in Chapter 6.

Step	Press these keys	Comments
1	FUNCTION, DEF 3	"ENTRY MODE" will appear in the display.
2	GHI 4	"POLLING FUNCTION" will appear in the display.
3	1 **or** ABC 2	Press "**1**" to turn the polling function on, or "**2**" to turn it off.
4	STOP, STOP	Press the **STOP** key twice to exit.

Polling Others

1 **Dial the number of the fax machine you want to poll using one of the following methods:**

- Enter the full number using the number keys.
- Press the **SPEED/ SEARCH** key and enter a 2-digit Speed Dial number.
- Press the **SPEAKER** key and dial the full number. Wait for the fax answer-back tone.
- Press the **SPEAKER** key and then press a Rapid key. Wait for the fax answer-back tone.

(example)

2 **Press Rapid key 20/ POLL.**

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Being Polled (Memory Polling)

To allow multiple fax machines to poll your fax, or in cases where you want to free up the original feeder tray for other operations, use Memory Polling instead of Polling Standby.

Programming a Memory Polling Operation

You can choose whether to allow polling only once, or an unlimited number of times. In the later case, your fax can be used as an electronic "bulletin board".

- Only one original can be stored at a time for memory polling, however, you can store multiple page originals.
- If you allow polling only once, the original will be automatically cleared from memory after polling. If you allow polling an unlimited number of times, the original will remain in memory until you clear it using the procedure described in "Clearing Originals" which follows.
- If you have an original stored in memory for polling, and you want to add to it, following the procedure described in "Adding to Originals".

To program a Memory Polling operation, either load the original in the SPF or use the original table as described below. Then, set the reception mode to AUTO (Press the **RECEPTION MODE** key until the AUTO light comes on).

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Step	Press these keys	Comments
1	FUNCTION, WXYZ 9	"MEMORY POLL MODE" will appear in the display. "1: 1 TIME 2: REPEAT" will appear at the bottom of the display.
2	1	"SET RESOLUTION & CONTRAST" will appear in the display.
3	RESOLUTION, CONTRAST	Adjust the resolution and/or contrast settings if desired.
4	ENTER	When using the SPF, press **ENTER** key. When using the original table, follow steps 1-5 in the section "Setting the Original" in this chapter. "STAND-BY" will appear in the display, and the original will be scanned into the machine's memory. The date and time will return to the display.

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Adding to Originals

If you have an original stored in memory for polling, and you want to add pages to it, use the following procedure.
If you allow polling only once, the original will be automatically cleared from memory after polling. If you allow polling an unlimited number of times, the original will remain in memory until you clear it using the procedure below:

Step	Press these keys	Comments
1	FUNCTION, WXYZ 9	"MEMORY POLL MODE" will appear in the display. "1: ADD 2: CLEAR" will appear at the bottom of the display.
2	1	Continue with step 3 in the "Programming a Memory Polling Operation" section.

Clearing Originals

Step	Press these keys	Comments
1	FUNCTION, WXYZ 9	"MEMORY POLL MODE" will appear in the display. "1: ADD 2: CLEAR" will appear at the bottom of the display.
2	ABC 2	The date and time will return to the display.
3	STOP, STOP	Press the **STOP** key twice to exit.

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Timer Operations

The timer function allows you to set a transmission or polling operation to be performed automatically at a time you specify. Up to three transmission operations or polling operations can be set at any one time, and the times they will be performed can be specified up to a week in advance.

Note: *You can use this function only when you send the document from the SPF.*

You can use this function, for example, to take advantage of lower nighttime telephone rates without having to be there when the operation is performed.

- For a timer transmission, scan the original into memory when you set the transmission. Scanning the original into memory is convenient because you do not have to worry about original mix-ups or forgetting to load the original.

- If the memory becomes full while the original is being scanned, "MEMORY FULL" will appear in the display.
  - Press the **FAX START** key to transmit the pages that have been stored up to that point in memory.
  - Press the **STOP** key to cancel the entire transmission.

Note: *In Reverse Sending mode, you must press the **STOP** key to cancel the entire transmission when "MEMORY FULL" appears in the display.*

- Code numbers are used to specify each day of the week. Refer to the table below when making time settings which include a specified day.

Day	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Code	0	1	2	3	4	5	6

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To set a timer operation:

Step	Press these keys	Comments
1	FUNCTION, 1	"TIMER MODE" will appear in the display.
2	1	Select SET. "TIMER COMM. #=1", "TIMER COMM. #=2" or "TIMER COMM. #=3" will appear in the display.
3	◄ or ►, ENTER	Select "SEND MODE" or "POLLING MODE".
4	0, DEF 3, ABC 2, 0 (example)	Enter the time of the operation (2 digits for the hour and 2 digits for the minute).
5	ABC 2 or ENTER	Enter the code for the day of the operation. If the operation will be performed within 24 hours, just press the **ENTER** key.
6	ENTER (example)	"ENTER NUMBER" will appear in the display.
7	0, JKL 5 (example)	Enter the fax number of the other machine using one of the following methods: • Press a Rapid key. • Enter a Speed Dial number with the number keys.
8	ENTER	"SET RESOLUTION & CONTRAST THEN ENTER" will appear in the display.
9	RESOLUTION, CONTRAST	If this is a transmission operation, adjust the resolution and/or contrast if desired. (Otherwise, skip this step.)
10	ENTER (optional)	"LOAD ORIGINAL(S)" will appear in the display. If the original is already loaded, no message will appear in the display. After loading the original, it is scanned into memory. Then the original can be sent at the time you selected, or polling can be performed.

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To cancel a timer operation:

If you need to cancel a timer operation after it has been set, follow the steps below:

If the timer operation is a transmission operation, you will need to know the number assigned to it. If you do not remember the number (it appears in the display when you set the operation), print out the Timer List. See "Printing Out Reports" in this chapter for details on how to print out the Timer List.

Step	Press these keys	Comments
1	FUNCTION, 1	"TIMER MODE" will appear in the display.
2	ABC 2	Select "CLEAR". "ENTER # (1-3)" will appear in the display.
3	1 (example)	Enter the 1-digit number assigned to the operation.
4	ENTER	"CLEARED" will appear in the display.
5	STOP, STOP	Press the **STOP** key twice to exit.

Anti Junk Fax

You can avoid wasting fax paper by using the Anti Junk Fax function. This function prevents the reception of faxes from up to ten specified parties.

To turn the Anti Junk Fax feature on and off, use the following procedure:
Factory setting: 2 (OFF)

Step	Press these keys	Comments
1	FUNCTION, MNO 6	"ANTI JUNK FAX" will appear in the display.
2	►, ENTER	"ANTI JUNK SELECT" will appear in the display.
3	1 or ABC 2	Turn Anti Junk Fax on or off.
4	STOP, STOP	Press the **STOP** key twice to exit.

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To store junk fax numbers, use the following procedure:

Step	Press these keys	Comments
1	FUNCTION, MNO 6	"ANTI JUNK FAX" will appear in the display.
2	◄, ENTER	"JUNK FAX # MODE" will appear in the display.
3	1, ENTER	"ENTER JUNK FAX #" will appear in the display.
4	JKL 5, JKL 5, JKL 5, ABC 2, 0, MNO 6, ABC 2 (example)	Enter the fax number (maximum of 20 digits).
5	ENTER	"STORED" will appear in the display.
6 Step 3 or	STOP, STOP ...	Return to Step 3 to enter another number, or press the **STOP** key a number of times until you exit.

To clear junk fax numbers, use the following procedure:

Step	Press these keys	Comments
1	FUNCTION, MNO 6	"ANTI JUNK FAX" will appear in the display.
2	◄, ENTER	"JUNK FAX # MODE" will appear in the display.
3	ABC 2	"JUNK FAX # CLEAR" will appear in the display.
4	0, 1, ENTER (example)	Enter the number of the fax number to clear. "CLEARED" will appear in the display.
5 Step 4 or	STOP, STOP ...	Return to Step 4 to clear another number, or press the **STOP** key a number of times until you exit.

Printing Out Reports

The machine is capable of printing a range of reports on faxing activities as well as various settings you have made. The reports are described below.

1. TRANSMISSIONS ACTIVITY REPORT:

Faxes sent from the machine.

ACTIVITY REPORT (SENDING) P. 01

20-MAR-2000 MON 13:09

#	DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE
01	13-MAR	05:39	1	00″	0	SEND	DOCUMENT JAM

TOTAL : 00″ 0

2. RECEPTIONS ACTIVITY REPORT:

Faxes received by the machine.

ACTIVITY REPORT (RECEIVING) P. 01

20-MAR-2000 MON 00:11

#	DATE	START	SENDER	RX TIME	PAGES	TYPE	NOTE
01	13-MAR	05:40		05"	0	RECEIVE	POWER FAIL
		05:41		31"	0	RECEIVE	CANCEL
		05:42		12"	0	RECEIVE	CANCEL
		05:44		12"	0	RECEIVE	CANCEL

TOTAL : 1'00"

3. TIMER LIST:

ID numbers for timer operations.

TIMER LIST P. 01

20-MAR-2000 MON 17:01

TIMER #	OPERATION RESERVED	TIME	TYPE	RESOLUTION	PAGES	RECEIVER
1	11:11	MON	SEND	STANDARD	1	4507
2						
3						

REMOTE TX

TYPE	RESOLUTION	PAGES	TIMES
REMOTE TX	STANDARD	1	REPEAT

4. FAX NUMBER LIST:

Fax numbers stored in the machine as either Rapid key or Speed Dial numbers.

FAX NUMBER LIST P. 01

20-MAR-2000 MON 04:35

RAPID/ SPEED #	NAME	FAX NUMBER	CHAIN DIAL
R01		4507	

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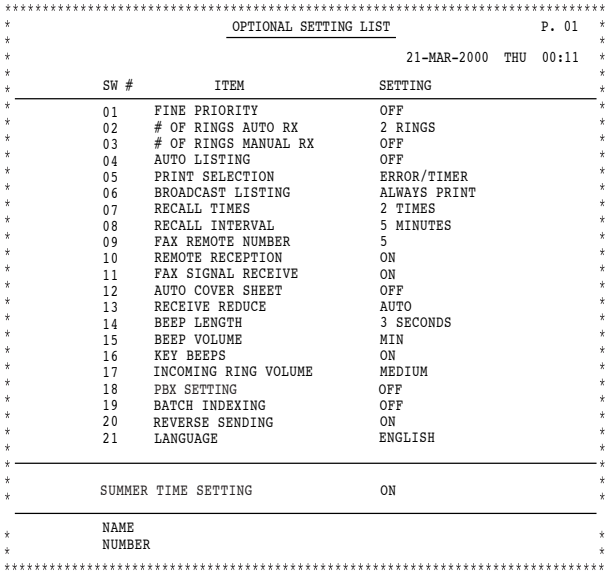
5. OPTIONAL SETTING LIST:

Currently activated optional settings.



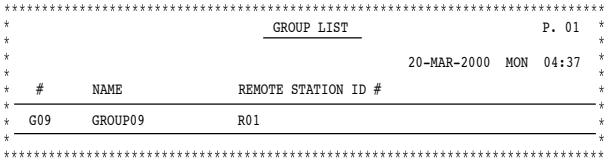
OPTIONAL SETTING LIST P. 01

21-MAR-2000 THU 00:11

SW #	ITEM	SETTING
01	FINE PRIORITY	OFF
02	# OF RINGS AUTO RX	2 RINGS
03	# OF RINGS MANUAL RX	OFF
04	AUTO LISTING	OFF
05	PRINT SELECTION	ERROR/TIMER
06	BROADCAST LISTING	ALWAYS PRINT
07	RECALL TIMES	2 TIMES
08	RECALL INTERVAL	5 MINUTES
09	FAX REMOTE NUMBER	5
10	REMOTE RECEPTION	ON
11	FAX SIGNAL RECEIVE	ON
12	AUTO COVER SHEET	OFF
13	RECEIVE REDUCE	AUTO
14	BEEP LENGTH	3 SECONDS
15	BEEP VOLUME	MIN
16	KEY BEEPS	ON
17	INCOMING RING VOLUME	MEDIUM
18	PBX SETTING	OFF
19	BATCH INDEXING	OFF
20	REVERSE SENDING	ON
21	LANGUAGE	ENGLISH
	SUMMER TIME SETTING	ON
	NAME	
	NUMBER	

6. GROUP LIST:

Fax numbers stored under Group keys.



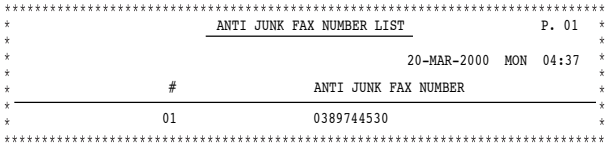
GROUP LIST P. 01

20-MAR-2000 MON 04:37

#	NAME	REMOTE STATION ID #
G09	GROUP09	R01

7. ANTI JUNK FAX NUMBER LIST:

Fax numbers designated as Anti Junk Fax numbers.



ANTI JUNK FAX NUMBER LIST P. 01

20-MAR-2000 MON 04:37

#	ANTI JUNK FAX NUMBER
01	0389744530

Use the following procedure to print out reports:

Step	Press these keys	Comments
1	FUNCTION, ABC 2	"LISTING MODE" will appear in the display.
2	1 to PQRS 7	The machine will then automatically print out the selected report.

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Activity Report Auto Listing

You can have the machine automatically print out Transmission and Reception Activity Reports at designated times (for example, daily, every two days, weekly, etc.).
Information about only the 50 most recent transmissions and receptions can be printed out. Information about transmissions and receptions older than these are deleted from the unit's memory.

Factory setting: 5 (OFF)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	0, GHI 4	"AUTO LISTING" will appear in the display.
3	1 to JKL 5	Press **1** for AUTO LISTING/DAY, **2** for AUTO LISTING/2DAYS, **3** for AUTO LISTING/4DAYS, **4** for AUTO LISTING/WEEK, or **5** for AUTO LISTING OFF.
4	STOP, STOP	Press the **STOP** key twice to exit.

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Printing Transaction Reports

You can choose to have various Transaction Reports printed out after certain activities on the machine : transmission, reception, or error. To use this feature, follow this procedure:

Factory setting: 2 (ERROR/TIMER)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	0, JKL 5	"TRANSACTION LIST" will appear in the display.
3	1 to JKL 5	Select the report setting: **1** (ALWAYS PRINT): After each transmission, reception, or error. **2** (ERROR/TIMER): After an error or timer operation only. **3** (SEND ONLY): After a transmission only. **4** (NEVER PRINT): Never prints. **5** (ERROR ONLY): After an error only. "STORED" will appear in the display.
4	STOP, STOP	Press the **STOP** key twice to exit.

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Printing Broadcasting Reports

Broadcasting Reports can be printed out after broadcasting activities. You can change the report setting. To do this, follow this procedure.

Factory setting: 1 (ALWAYS PRINT)

Step	Press these keys	Comments
1	FUNCTION, GHI 4	"OPTION SETTING" will appear in the display.
2	0, MNO 6	"BROADCAST LIST" will appear in the display.
3	1 to DEF 3	Selecting the report setting: **1** (ALWAYS PRINT): After each transmission or error. **2** (ERROR ONLY): After an error only. **3** (NEVER PRINT): Never prints. "STORED" will appear in the display.
4	STOP, STOP	Press the **STOP** key twice to exit.

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Troubleshooting

Problem	Check and Remedy
Dialing cannot be done.	Make sure that the telephone line is properly connected to both the machine and the wall jack.
No transmission takes place.	Make sure that the receiving machine has not run out of printing paper. Make sure that the receiving machine is G3 compatible. (This information should be included in the machine's originalation.) Check the display for possible error messages.
Nothing is printed at the receiving end.	Make sure that the original you are sending is fed into the machine in the correct way. Make sure that the receiving machine is in working order.
A distorted image is received at the other end.	Noise on the telephone line may cause distortion. Try sending the original again. Make a copy of the original on the machine. If the copy is also distorted, the machine may have a problem.
The received original is faint.	Ask the other party to send higher contrast originals. If the contrast is still too low, make a copy with the machine to check it.
Received images are distorted.	Noise on the telephone line may cause distortion. Have the sending party send the original again. The drum cartridge may need replacement.
COPY SERVICE ERROR	The copier will not function. Turn the power switch off, remove the power cord from the outlet, and contact your SHARP dealer.
FAX SERVICE ERROR (X)	The fax will not function. Contact your SHARP dealer.

Note: *If your problem cannot be solved by carrying out the instructions in the Check and Remedy column above, please contact your SHARP dealer.*

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Messages and Signals

Display Messages

Message	Meaning
ORIGINAL JAM	The original is jammed.
FAX RCVD IN MEMORY	A fax has been received in memory because the TD cartridge needs replacement (See the copier chapter.), the fax machine has run out of printing paper, or the paper is jammed. The fax will be printed out automatically once the problem is fixed.
LINE ERROR	Fax transmission or reception was not successful. Press the STOP key to clear the message, and then try again.
MEMORY FULL	The memory is full. See “Memory” under “Special Functions” in Chapter 8.
PAPER JAM	The printing paper is jammed.
PAPER SIZE ERROR SET XXX SIZE PAPER	The setting for the printing paper size is incorrect. Set it correctly. In the area labeled “XXX,” “LTR”, “LGL” or “A4” will appear.
CAN NOT PRINT	TD cartridge empty. TD cartridge not inserted. TD cartridge or drum cartridge life expired. (See the copier chapter.)
CHECK COPIER COVER	Front cover open.
PAPER OUT (XXX)	The paper has run out and the data is read into memory. Set it correctly. In the area labeled “XXX,” “LTR”, “LGL” or “A4” will appear.
LOAD ORIGINAL(S)	Set the original(s) in the machine.
NO RESPONSE	Line error No answer from the receiver.
RETURN ORG. XX SHEET(S)	Paper jam in the SPF. When memory is full and there is a line error, the display alternates between the RETURN ORG. and MEMORY FULL messages.

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Audible Signals

Sound Type	Duration	Meaning
Continuous tone	3 seconds	Indicates the end of transmission, reception, or line error.
Continuous tone	1 second	Warning tone

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Notes

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10. GETTING STARTED

Introduction

This chapter provides basic information for using the printer and scanner features of the FO-3800M.

- When you try to execute printing while copying is being performed, printing will be executed after copying is finished.
- When you try to make a copy while printing is being performed, printing will be interrupted and you can make a copy. Printing will be resumed after copying is finished.

Trademark acknowledgments

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Making floppy disks from CD-ROM

The printer driver data in the CD-ROM can be copied to floppy disks.

Windows 95/Windows 98/Windows NT 4.0:

1. Insert the installation CD-ROM into the CD-ROM drive.
2. Double-click **My Computer**, **AI-f_fo** (CD-ROM), and **Makedisk**.
3. Double-click **Makedisk.exe**.
4. Follow the on-screen instructions.

Windows 3.1x:

1. Insert the installation CD-ROM into the CD-ROM drive.
2. Double-click the **File Manager** in the Main window of Program Manager and select **CD-ROM** and the **Makedisk** directory.
3. Double-click **Makedisk.exe**.
4. Follow the on-screen instructions.

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Main features

① Printing from Windows 3.1x, Windows 95, Windows 98, and Windows NT 4.0 applications

- High-speed and high-quality printing can be performed from Windows 3.1x, Windows 95, Windows 98, and Windows NT 4.0 applications through the SHARP GDI (Graphics Device Interface) system.
- Since print data are processed in the computer, waiting time during printing is short.

② Scanning from Windows 3.1x, windows 95, Windows 98, and Windows NT 4.0 appliacations

- The SHARP TWAIN interface software enables the FO-3800M to perform high-quality monochrome scanning directly from a TWAIN-compatible application.

TWAIN is an application interface (API) standard which is used to scan images from scanners. The SHARP TWAIN interface software supports the TWAIN standard, version 1.6.

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Connecting the interface cable

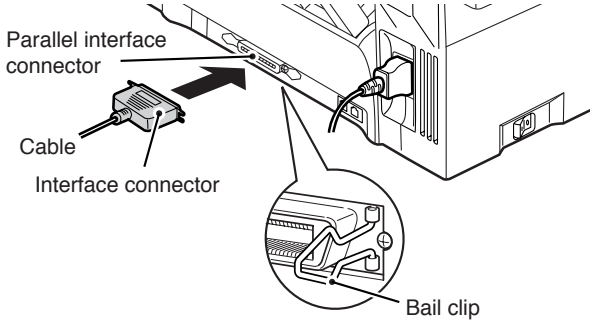
To use the FO-3800M as a laser printer or scanner, connect it to your computer using a prallel interface cable.

Use the parallel interface cable included with the FO-3800M.
For specifications of the parallel interface, see page 128.

1 Check that the power switches of both the machine and the computer are in the OFF position.

2 Plug the parallel interface cable into the printer interface connector. Fasten the two bail clips at the side of the printer connector to hold the interface connector in place.

3 Plug the other end of the cable into the parallel interface connector on your computer. (Refer to your computer manual for details.)



This machine sends and receives data bi-directionally and at high speed. Some switch boxes and pass-through devices cannot support high-speed, bi directional transfer of data, and using them may cause printing errors.

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Installing the printer driver software

Description of the printer driver

The printer driver is the software program which runs the printer. It converts the data in your file into information that the printer can understand. It also controls communication between the printer and computer as the data is printed.

Checking the hardware and software requirements

You will need the following hardware and software in order to install the printer driver.

Computer type	IBM PC/AT or compatible computer equipped with a bi-directional parallel interface and CD-ROM
Windows type	Windows 3.1x, Windows 95, Windows 98, Windows NT 4.0
CPU	486DX 66MHz or better
Physical RAM	Windows 95, Windows 3.1x: 8 MB (16 MB or more is recommended.) Windows NT 4.0: 12MB (16MB or more is recommended.) Windows 98: 16MB (32MB or more is recommended.)
Virtual storage (swap file)	8 MB or more
Display	640 x 480 dots (VGA) or better
Hard disk free space	11 MB or more

The printer driver included in this product cannot be used under Windows NT 3.5x, OS/2, pure MS-DOS and other operating systems which are not described above.

Installing the printer driver

The software for your printer is provided on CD-ROM which was packed with your laser printer.
Before installing the printer driver, be sure to check the following items.

- Is the printer connected properly to the computer?
- Does the printer have paper?
- Is there another GDI printer driver or Windows Printing System printer driver already installed? If installed, change the printer port setting. For the change of the printer port setting, see **USING OTHER INSTALLED DRIVERS** on page121.

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Windows 95/Windows NT 4.0:

1 Load paper into the paper tray of the printer. For instructions on loading paper, see the section **LOADING COPY PAPER** on page 12.

2 Turn on the machine.

3 Turn on your computer and start Windows.

Before installing the printer driver, be sure to close all other applications which may be open.

4 When using Windows 95 on a personal computer with plug & play*, the "Update Device Driver Wizard" window will appear. Insert the installation CD-ROM into the CD-ROM drive. Click the **Next** button and follow the on-screen instructions. If the "Copying Files" window appears during this operation, enter **R:** (if the CD-ROM is designated as drive R) and click the **OK** button.

Update Device Driver Wizard
This wizard will complete the installation of:
SHARP AL-F_FO
by searching your local drives, network, and Internet locations for the most current driver.
If you have a disk or CD-ROM that came with this device.
It is recommended that you let Windows search for an updated driver. To do this, click Next to continue.
< Back
> Next
Cancel

- If you use Windows 95 and the "New Hardware Found" window will appear, click the **Driver from Disk Provided by Hardware Manufacturer** button and then click **OK**. Proceed to step 6.
- If you use Windows 95 and the screen shown above or the "New Hardware Found" window does not appear, proceed to step 5.
- If you use Windows NT 4.0, proceed to step 5.

★ Plug & play
This feature is effective if both the computer and peripheral equipment are equipped with IEEE 1284 compliant parallel interface.

The screen displayed depends on the version of Windows you are using.

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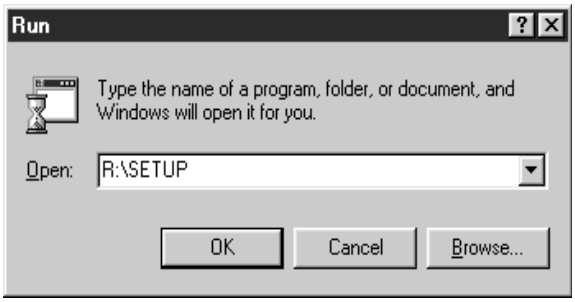
5 Insert the installation CD-ROM into the CD-ROM drive.
Click the **Start** button and select **Run**. When the screen shown below appears, type **R:\SETUP** (if the CD-ROM is designated as drive R) and click the **OK** button. Follow the on-screen instructions.



6 The “Install From Disk” window will appear. Insert the installation CD-ROM into the CD-ROM drive. Type **R:** (if the CD-ROM is designated as drive R) and click the **OK** button. Follow the on-screen instructions.

10

If you have any problem with the test print, see **TROUBLESHOOTING** on page 119 and check the symptoms and solutions. Print the test page again after removing the problem.

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Windows 98:

1 Load paper into the paper tray of the printer. For instructions on loading paper, see the section **LOADING COPY PAPER** on page 12.

2 Turn on the machine.

3 Turn on your computer and start Windows.

Before installing the printer driver, be sure to close all other applications which may be open.

4 When using Windows 98 on a personal computer with plug & play*, the "Add New Hardware Wizard" window will appear. Click the **Next** button and follow the on-screen instructions.

- If the "Add New Hardware Wizard" window does not appear, proceed to step 8.

*Plug &play: For plug & play information, see page 105.

Add New Hardware Wizard
This wizard searches for new drivers for:
SHARP AL-F_FO
A device driver is a software program that makes a hardware device work.
< Back
> Next
Cancel

5 Select **Search for the best driver for your device** and click the **Next** button.

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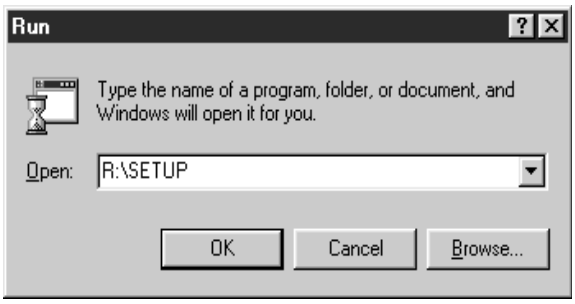
6 Insert the installation CD-ROM into the CD-ROM drive. Select the **CD-ROM drive** and click the **Next** button. Follow the on-screen instructions.

Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Floppy disk drives
CD-ROM drive
Microsoft Windows Update
Specify a location:
A:\
Browse...
< Back
> Next
Cancel

Windows driver file search will find the device “SHARP AL-F_FO”. Click the **Next** button. Follow the on-screen instructions.

7 8 Insert the installation CD-ROM into the CD-ROM drive. Click the **Start** button and select **Run**. When the window shown below appears, type **R:\SETUP** (if the CD-ROM is designated as drive R) and click the **OK** button.Follow the on-screen instructions.



If you have any problem with the test print, see **TROUBLESHOOTING** on page 119.

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Windows 3.1x:

1 Load paper into the paper tray of the printer. For instructions on loading paper, see the section **LOADING COPY PAPER** on page 12.

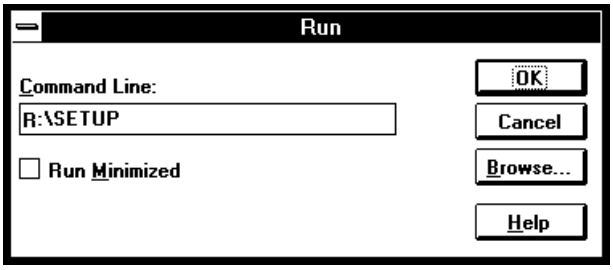
2 Turn on the machine and then start Windows on your computer.

Before installing the printer driver, be sure to close all other applications which may be open.

3 Insert the installation CD-ROM into a CD-ROM drive.

4 Choose **File** from the Menu bar in Program Manager, and then choose the **Run...** command.

5 Type **R:\SETUP** (if the CD-ROM is designated as drive R) in the command line box and then click the **OK** button.



6 Follow the on-screen instructions.

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"SHARP AL-F_FO" printer driver group

When the printer driver is installed, the SHARP AL-F_FO printer driver group will be created. This group allows the following functions to be executed.

DOS Emulation HELP

DOS Emulation Setup
See page 116.

Readme
The latest information on the printer driver and the TWAIN driver is included in this note. Read the Readme first.

Status Monitor HELP

Status Monitor
The printer state and information on current printing are displayed on the status monitor window. When printing starts, the status monitor screen will appear on the computer display.

Uninstall AL-F_FO
The printer driver and the TWAIN driver can be uninstalled.
If the drivers are uninstalled, printing and scanning cannot be performed on the machine.

- Be sure to read "Readme" found in the printer driver group before starting to print from application programs.
- If you uninstall the printer driver, the TWAIN driver is unistalled at the same time.

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11. PRINTING

Printing a page

The printing method is described below. Read the description with the operation manual for the application to be used.

- Before you can use this machine as a printer, you must install the supplied SHARP printer driver which has been supplied with the printer. Once this software has been installed, you can control the printing of your documents from the printer driver which appears on your computer screen. See **INSTALLING THE PRINTER DRIVER SOFTWARE** on page 104.
- When using multiple printers, you must change the printer setting from the control panel to change the printer to be used. This machinecannot be used with other GDI printers and printers that use the Windows Printing System. For details, see **USING OTHER INSTALLED DRIVERS** on page 121.

Executing printing

1 Ensure that paper of the desired size is loaded in the paper tray. (See the section on **LOADING COPY PAPER** on page 12.)

To print onto special papers such as transparency film, labels, thick paper and envelopes, specify “Manual Feed” as the paper source using the printer driver, and feed it one sheet at a time.

2 Turn on the machine. The ready ( ) indicator will light up.

3 Select the settings for printing such as the number of sets and paper type from the application. See **SETTING PRINT CONDITIONS FROM PRINTER DRIVER** on page 113.

Before printing, ensure that the AL-F_FO has been selected as the printer.

4 Print the file from your software application.

- If copying is being performed when printing is started, copying will continue. After copying is complete, printing will be executed when the clear (C) key is pressed twice or approximately 60 seconds (auto clear time)* elapsed.
  * The auto clear time varies with a user program setting. See page 27.
- Preheat mode and auto power shut-off mode will be canceled when printing is started.

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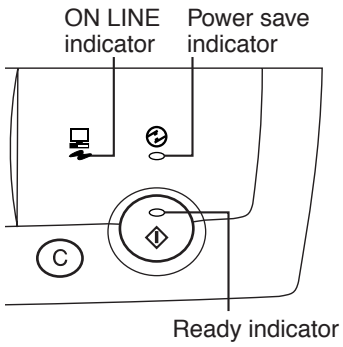
- If the paper size specified from the software application is larger than the paper size in the machine, the image may be printed onto two sheets of paper.
- If the paper size specified from the software application is larger than the paper size in the printer, part of the image that is not transferred to the paper may remain on the surface of the drum. In this case, the other side of the paper may become dirty. If this occurs, change to the correct size paper and print two or three pages to clean the image.

Indicators on the operation panel

The ON LINE indicator and the ready ( ) indicator indicate the state of the printer.



Ready indicator

On: Indicates the machine is ready for printing or scanning (on line), or printing is being performed.

Off: Indicates copying is being performed, scanner data is being read , or the machine is in the auto power shut-off mode.

ON LINE indicator

On: Indicates the machine is ready for printing or scanning (on line), printing is being performed, or scanner data is being read.

Blinking: Indicates a copy job has interrupted a print job.

Off: Indicates copying is being performed.

Power save indicator

On: Indicates the machine is in a power save mode.

Setting print conditions from printer driver

The setting method and setting items of the printer driver are described below. Also refer to the printer driver help for more information.
Before setting the printer driver, check the following items.

- The FO-3800M printer driver has been installed in the computer to be used. If not, see **INSTALLING THE PRINTER DRIVER SOFTWARE** on page 104.
- The FO-3800M has been selected as the default printer on the computer to be used.

Windows 95/Windows 98/Windows NT 4.0:

1 Click the **Start** button of the computer and then select **Printers** from Settings.

2 If you use Windows 95/Windows 98, right-click the **SHARP AL-F_FO** icon in the Printer folder and select **Properties** in the menu.
If you use Windows NT 4.0, right-click the **SHARP AL-F_FO** icon in the Printer folder and select **Document defaults** in the menu.

For this description, it is assumed that the mouse is configured for right hand operation.

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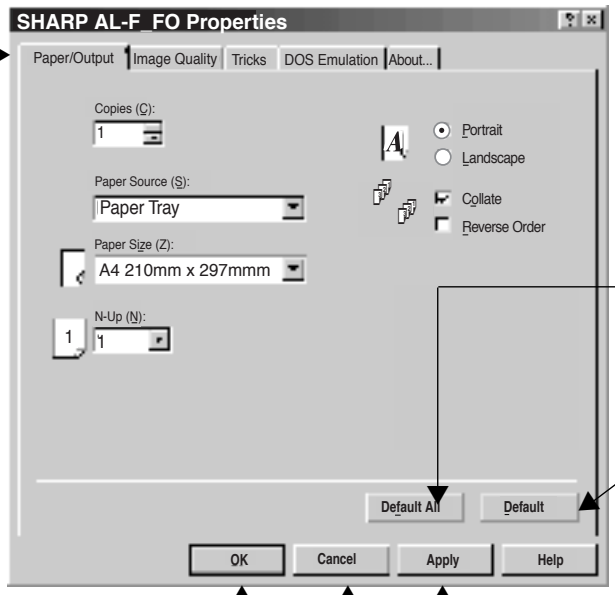
3 The properties of the SHARP AL-F_FO printer driver will be displayed. If you use Windows 95/Windows 98, click the **Driver Setup** tab to display the following screen.

* Screen on Windows 95

Driver Setup tabs
By selecting a different tab other driver settings can be changed.
Example: Resolution changes can be made by selecting the Image Quality tab.



Default All button
All settings which have been selected by all tabs will be returned to their default state.

Default button
The settings which have been selected by each tab will be returned to their default state.

OK button
All driver settings which have been selected by each tab will be saved and the properties will be terminated.

Cancel button
The settings which have been selected by each tab will be cancelled and the properties will be terminated.
However, the settings which have been saved will not be cancelled.

Apply button
The settings which have been selected by each tab will be saved.
*This button is not displayed on Windows NT 4.0.

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Windows 3.1x:

1 Double-click the **Print Manager** icon in the Main window of Program Manager.

2 Select **Options** in the Print Manager and then select **Printer Setup**.

3 Select **SHARP AL-F_FO** in the Installed Printers and click the **Setup** button.

4 The properties of the SHARP AL-F_FO will be displayed.

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Printing from an MS-DOS application

You can execute printing from an MS-DOS application which has been executed from the MS-DOS prompt in Windows.

This printer can only print from applications run from the MS-DOS prompt in Windows. It cannot print when running in native MS-DOS mode.

Print setting from the MS-DOS prompt

Windows 95/Windows 98 has the item, “Spool MS-DOS print jobs” in the port settings. If this setting is not selected, the printer will not operate properly. Use the following procedure to check the setting.

1. Click the **Start** button.
2. Select **Settings** and then click **Printers**.
3. Right-click the **AL-F_FO** icon in the printer dialog box and click **Properties**.

For this description, it is assumed that the mouse is configured for right hand operation.

4. Click the **Details** tab in the Properties dialog box.
5. Click the **Port Settings** button.
6. Check that “**Spool MS-DOS print jobs**” is checked in the port setting dialog box.

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Settings on the front panel

Paper size, tray selection, and other options are set from the front panel. Use the following procedure to start the front panel.

Windows 95/Windows 98/Windows NT 4.0:

1 Click **Start**, **Program**, **SHARP AL-F_FO**, and **DOS Emulation Setup**.

Windows 3.1x:

1 Double-click the **DOS Emulation Setup** icon in the **SHARP AL-F_FO** in **Program Manager.**

Software printer setting

Set your MS-DOS application to use the following model printer.

HP LaserJet Series II (PCL4)

If this printer is not listed on the application's printer setup, choose a PCL4 compatible printer.

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12. SCANNING

Scanning an image

Before you can scan images using the AL-F_FO from a TWAIN-compatible application, you must install the supplied SHARP TWAIN interface software. This software is automatically installed at the same time you install the SHARP printer driver provided on CD-ROM. See **INSTALLING THE PRINTER DRIVER SOFTWARE** on page 104.

- Be sure to read "Readme" in the printer driver group before scanning images from application programs.
- When using the FO-3800M as a scanner, you must make sure that your computer Printer Port is configured for ECP mode. If the computer is set to a mode other than ECP mode, change the mode ECP mode. The method for setting ECP mode differs depending on your computer. Refer to the documentation for your computer.

- Refer to the TWAIN help for more information.
- For information about the state of operation panel indicators when using the scanner function, see **Indicators on the operation panel** on page 112.
- Preheat mode and auto power shut-off mode will be canceled when scanning is started.
- When scanning more than one original from the SPF with "Reverse Order" selected, you need enough free space on the hard disk (Up to 180MB of free space).

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Scanning from a TWAIN-compatible application

1. When multiple sources are available, choose **Select Source** from the appliacation's **File** menu and select **SHARP AL-F_FO TWAIN_xx.**
2. Choose **Acquire** from the **File** menu. AL-F_FO TWAIN software starts.
3. Place the original and press the **Preview** button.
4. Set scanning parameters as necessary.
5. Press the **Scan** button.
   You exit from AL-F_FO TWAIN software and the scanned image appears in the application's window.

Exiting from AL-F_FO TWAIN software

To terminate AL-F_FO TWAIN software, click on the close box while AL-F_FO TWAIN window is active.

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13. TROUBLE ?

Troubleshooting

Some problems are common to the copier, printer and scanner features, so also check **TROUBLESHOOTING** on page 99.

Problem	Possible cause	Solution
Printer driver cannot be installed.	Hard disk free space is not sufficient for installation of the printer driver.	Delete unnecessary files and application software to increase hard disk free space. (The driver requires at least 11MB free space.) See page 104
	The operating system is not proper.	Use Windows 3.1x, Windows 95, Windows 98 or Windows NT 4.0. See page 104
Paper does not feed into the machine.	Paper is not set correctly.	Insert the paper correcly. See page 12
	Too much paper in the paper tray.	Remove excessive paper from the paper tray. For envelopes, transparency film, and labels, feed one sheet at a time. See page 12
The machine does not print.	The interface cable might not be connected properly.	Check the interface connection. See page 103
	The interface cable is defective.	Check the cable with a computer and printer which you know work. If printing is still not possible, the interface cable is defective.
	The port setting is incorrect.	Check the printer settings in the Windows Control panel to make sure that the print job is being sent to the correct port (for example, LTP1).
	The TD cartridge or drum cartridge is not installed properly.	Ensure that the TD cartridge and drum cartridge are installed properly. See page 29, 31
	The printer may be configured incorrectly.	Check the application to make sure that all the print settings are correct.
	The printer driver may be incorrectly installed.	Reinstall the printer driver software and try printing a test page. See page 104

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Problem	Possible cause	Solution
The machine prints wrong data or incorrect characters.	The inteface cable might not be connected properly.	Check the interface connection. See page 103
	The interface cable is not IEEE-1284 compliant or a switch box / pass-through device does not respond to high speed data transfer.	Use the interface cable included with the FO-3800M. Remove any switch box / pass-through device connected FO-3800M. See the parallel interface specifications. See page 102, 128
Printing is too slow.	If using Windows 3.1x, Print manager may be disabled.	Double-click the Printers icon in Control Panel and check the Use Print Manager box.
	There may be too many applications open.	Close all unnecessary applications before printing.
	The resolution is set to 600 dpi.	Set the resolution to 300 dpi. See page 113
	The computer may have insufficient random-access memory (RAM).	Install more random-access memory (RAM) in your computer. See page 104
The machine does not print the full image.	The page layout is too compex.	Simplify the page layout.
	Resolution is set to 600 dpi.	Set the resolution to 300 dpi. See page 113
	Page orientation setting may be incorrect.	Change the page orientation with the printer driver. See page 113
	There may be too many applications open.	Close all unnecessary applications before printing.
	The paper in the machine may be larger than the paper size specified in your application or printer driver.	Load the correct paper into the machine.
	The interface cable is not IEEE-1284 compliant or a switch box / pass-through device does not respond to high speed data transfer.	Use the interface cable included with the FO-3800M. Remove any switch box / pass-through device connected FO-3800M. See the parallel interface specifications. See page 102, 128
	The CPU specifications may be incorrect.	Check that the CPU of your computer is 486DX 66MHz or better. See page 104
	The computer may have insufficient random-access memory (RAM).	Install more random-access memory (RAM) in your computer. See page 104
The machine does not scan.	The interface cable might not be connected properly.	Check the interface connection. See page 103

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Using other installed drivers

If you use another GDI printer or a Windows Printing System printer, including the SHARP AL-800 series and AL-1000 series, interference between printers may occur and printing may not be performed properly.
To use another GDI printer or a Windows Printing System printer, you must change the port setting of the printer driver using the following procedure.

If another printer does not operate properly when the AL-F_FO printer driver is set to "FILE", uninstall the AL-F_FO printer driver. To uninstall the driver, see **UNINSTALLING PRINTER DRIVER** on page 122. If after uninstalling the AL-F_FO printer driver, the printer still does not operate properly, reinstall the printer driver you are using.

Windows 95/Windows 98/Windows NT 4.0:

1. Click the **Start** button.
2. Select **Settings** and then click **Printers**.
3. Right-click the **SHARP AL-F_FO** icon in the printer dialog box and then click **Properties**.

For this description, it is assumed that the mouse is configured for right hand operation.

4. Click the **Details** tab (**Ports** tab – on Windows NT4.0) in the Properties dialog box, select **FILE:** in the Print to the following port list box, and click the **OK** button.
5. Right-click the icon of the printer to be used and click **Properties**.
6. Click the **Details** tab (**Ports** tab – on Windows NT4.0) in the Properties window, select **LPT1** (or the currently used port), and click the **OK** button.

To use the AL-F_FO again, perform the same procedure but select the port to be used (for example, LPT1) in step 4.

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Windows 3.1x:

1. Double-click the **Control Panel** icon in the Main window of Program Manager.
2. Double-click the **Printers** icon. The Printers window will then open.
3. Select **AL-F_FO**, and then click the **Connect** button.
4. Select **File** from the list of options in the Ports window, and then click the **OK** button.
5. Select the new printer you would like to use from the list in the Installed Printers window, and then click the **Connect** button.
6. Select the printer port to use for the new printer, and then click the **OK** button.
7. Click the **Set As Default Printer** button, and then click the **Close** button.

To use the AL-F_FO again, perform the same procedure but select the port to be used (for example, LPT1) in step 4.

Uninstalling drivers

If the printer driver and the TWAIN driver are not installed correctly or if you no longer use this machine, uninstall the printer driver and TWAIN driver from your computer using the following procedure.

1. If using Windows 95/Windows 98/Windows NT 4.0, click **Start**, **Program**, **SHARP AL-F_FO**, and **Uninstall AL-F_FO**.
   If using Windows 3.1x, double-click the **SHARP AL-F_FO** icon in Program Manager and double-click the **Uninstall AL-F_FO** icon.
2. When the “Confirm File Deletion” window appears, click the **Yes** button.
3. When the “Remove Programs From Your Computer” window appears, click the **OK** button.

The printer driver and the TWAIN driver are uninstalled at the same time.

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14. SPECIFICATIONS

Fax specifications

Compatibility	ITU-T G3
Telephone line	PSTN
Dial mode	Pulse (10 pps), tone
Modem rate	14,400 bps with automatic fallback to 12,000, 9,600, 7,200, 4,800, or 2,400 bps
Compression method	MH, MR, MMR
Transmission time	Approximately 6 seconds using SHARP standard original. Transmission times can become longer depending on the telephone line conditions and the performance of the receiving fax machine. Time excludes fax protocol signals.
Memory	2 megabytes of RAM. Holds 120 pages (using SHARP standard original at standard resolution).
Sending original size	Maximun A4, minimum A5 One sheet at a time or several sheets at a time (when using the SPF) Maximum 216 mm x 355 mm Minimum 216 mm x 140 mm
Recording paper size	A4
SPF	30 sheets (52 to 90 g/m^2)
Resolution in Text mode	Standard: 200 x 100 dpi Fine: 200 x 200 dpi Super Fine: 200 x 400 dpi
Resolution in Half tone mode	200 x 20 dpi
Grayscale method in Half tone mode	“Error diffusion”
Grayscale level in Half tone mode	256 levels
Contrast	Light, Medium, Dark
Quick scan	8 pages per minute (Maximum) (Using SHARP-standard size original)
Broadcasting	Destination: maximum of 50 different locations Destinations: Selected from Rapid key, Speed Dial numbers, or Group keys locations

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Polling	Modes: Polling Others, Polling from memory
Delayed faxing	3 types selectable: Standard, Memory Transmission, or Polling Others
Anti Junk Fax	Up to 10 numbers
Auto Cover Sheet	6 message types selectable: “Urgent,” “Important,” “Confidential,” “Pls. Distribute,” “Pls. Call Back,” and no message
Report	Transaction, activity (send/receive), power fail (receive)
Printable setting lists	Anti Junk Fax numbers, timer, group, phone number, optional setting

As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production machines. There may be some deviations from these values in individual machines.

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Copier specifications

Type	Digital laser multifunction, desk-top type
Copy system	Dry, electrostatic transfer
Originals	Sheets, bound documents
Original size	Max. A4
Copy sizes	A6 to A4 (Feed copy paper lengthwise only.) Image loss: Max. 5 mm (leading and trailing edges) Max. 3 mm (either of the other edges)
Copy speed	8 copies/min.
Continuous copying	Max. 50 copies; subtractive counter
First-copy time	11 sec. (normal copying mode)
Copy ratio	Variable: 50% to 200% in 1% increments (total 151 steps) Fixed: 50%, 70%, 86%, 100%, 141%, 200%
Exposure system	Moving optical source, slit exposure (stationary platen) with automatic exposure / SPF: Moving original
Copy paper feed	One paper tray with automatic feed (250 sheets)
Fusing system	Heat pressure roller method
Development system	Non magnetic mono component development system
Light source	Fluorescent lamps
Resolution	600 dpi
Power supply	Local voltage ±10% (For this copiers power supply requirements, see the name plate located on the back of the unit.)
Power consumption	Max. 600 W
Overall dimensions	460 mm (W) x 650 mm (D)
Weight	Approx. 13 kg TD and drum cartridges included
Copier dimensions	460 mm (W) x 425 mm (D) x 307 mm (H)
Operating conditions	Temperature: 10°C to 35°C Humidity 20% to 80% (max. 60% at 35°C)
Noise level	Sound Power Level L_{WA} (1B=10dB) Copying: 6.7 [B (A)], Standby: Background noise level Sound Pressure Level L_{PA} (bystander positions) Copying: 49 [dB (A)], Standby: Background noise level Noise emission measurement in accordance with ISO 7779.

First-copy timemay differ depending on operating conditions, such as power-supply votage and room temperature.Thevalues forcopy speed are rounded to the nearest whole number.

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Paper

Type of media		Size	Weight
Standard paper and thick paper		A4 B5 A5 B6 A6	56 to 80 g/m² Paper capacity : 250 sheets 80 to 90 g/m² Paper capacity : 200 sheets
Special media	Transparency film	A4	52 to 130 g/m² **
	Envelope*	International DL International C5	

* Do not use envelopes that have metal clasps, plastic snappers, string closures, windows, linings, self-adhesive, patches or synthetic materials. These will cause physical damage to the copier. Envelopes with bent corners may frequently misfeed. They mustbe flattened.

**For paper weighing from 104 to 130 g/m², A4 is the maximum size that can be fed.

• Special papers such as transparency film and labels must be fed one sheet at a time.

Be sure to use only genuine SHARP parts and supplies.

SHARP GENUINE SUPPLIES

For best copying results, be sure to use only SHARP Genuine Supplies which are designed, engineered, and tested to maximize the life and performance of SHARP copiers. Look for the Genuine Supplies label on the toner package.

Supply list

Supply	Part no.	Usable life
Td cartridge	AL-80TD	Approx. 3,000 sheets*
Drum cartridge	AL-80DR	Approx. 20,000 sheets

*Based on copying onto A4 at 5% toned area. The life of the TD cartridge which has been included in the machine at the factory is approximately 1500 sheets (A4 size paper at 5% toned area).

Proper storage

1.Store the supplies in a location that is:
- Clean and dry,
- At a stable temperature,
- Not exposed to direct sunlight.

2.Store copy paper in the wrapper and lying flat.
- Paper stored out of the wrapper or in packages standing on end may curl or get damp, resulting in paper misfeeds.

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Printer specifications

Resolution	600 or 300 dpi canbe selected
Page description language	SHARP GDI
Page orientation	Portrait or landscape
First print time	Approx. 20 seconds*
Print speed	Approx. 8 pages per minute (A4)
Interface port	Bi-directional parallel interface (IEEE 1284 compliant)
Memory	6MB

* First print time may differ depending on operating conditions, such as power-supply voltage and room temperature. Also the time may differ depending on data quantity to be printed and applications

Scanner specifications

Scanning method	Flatbed scanner with moving scanning head
Light source	Fluorescent lamps
Sensor	CCD
Scanning range	Max. 21cm (W) x 35 cm (H)
Resolution	Standard : 400 dpi Max. 600 dpi (pseudo-resolution)
Output data	1bit
Scanning speed	0.85ms/line (Data tranfer time not included)
Interface	IEEE 1284 compliant parallel interface (ECP mode only)

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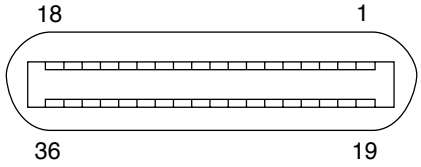
Parallel interface

This printer uses a bi-directional parallel interface. Use the interface cable attachedtothe FO-3800M.

For specifications of the parallel interfaceof your computer, see its operation manual.
Use the parallel interface cable specified by SHARP for prevention of external radio wave interference. For details, contact your SHARP dealer.

Connector
36-pin DDK 57LE-40360-730B (D29) female connector or equivalent connector.

Cable
Shielded typt bi-directional parallel interface. For best results, use a printer interface cale which is IEEE1284 compliant.



Pin configuration
The pin numbers and signal names are listed in the following table.

Pin No.	Signal name	Pin No.	Signal name
1	$\overline{\text{STB}}$	19	GND ($\overline{\text{STB}}$ RET)
2	DATA1	20	GND (DATA1 RET)
3	DATA2	21	GND (DATA2 RET)
4	DATA3	22	GND (DATA3 RET)
5	DATA4	23	GND (DATA4 RET)
6	DATA5	24	GND (DATA5 RET)
7	DATA6	25	GND (DATA6 RET)
8	DATA7	26	GND (DATA7 RET)
9	DATA8	27	GND (DATA8 RET)
10	$\overline{\text{ACKNLG}}$	28	GND ($\overline{\text{ACKNLG}}$ RET)
11	BUSY	29	GND (BUSY RET)
12	PE (Paper End)	30	GND (PE RET)
13	SLTC	31	INPRM
14	$\overline{\text{AUTO LF}}$	32	$\overline{\text{FAULT}}$
15	(NC)	33	(NC)
16	GND (0 V)	34	(NC)
17	FG	35	+5V
18	+5V	36	$\overline{\text{SLTC IN}}$

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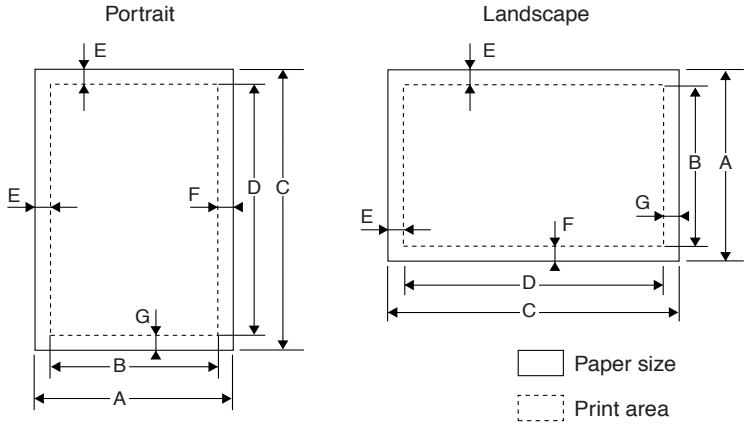
Print area

The print area of this printer is shown below.



600 dpi

Paper size	Dots						
	A	B	C	D	E	F	G
Letter	5100	4904	6600	6400	100	96	100
Legal	5100	4904	8400	8200	100	96	100
Invoice	3300	3104	5100	4900	100	96	100
A4	4960	4760	7015	6815	100	100	100
A5	3496	3296	4960	4760	100	100	100
B5	4299	4104	6070	5870	100	95	100
Folio	5100	4904	7800	7600	100	96	100
Foolscap	5100	4904	7440	7240	100	96	100

300 dpi

Paper size	Dots						
	A	B	C	D	E	F	G
Letter	2550	2456	3300	3200	50	44	50
Legal	2550	2456	4200	4100	50	44	50
Invoice	1650	1552	2550	2450	50	48	50
A4	2480	2384	3507	3407	50	46	50
A5	1748	1648	2480	2380	50	50	50
B5	2149	2056	3035	2935	50	43	50
Folio	2550	2456	3900	3800	50	44	50
Foolscap	2550	2456	3720	3620	50	44	50

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Transport

When moving the machine, follow the procedure below.

When moving this machine, be sure to remove the TD cartridge. This prevents toner from spilling inside the machine during shipment.

1 Turn the power switch off and disconnect the power cord.

2 Remove the printer interface cable.

3 Push gently on both sides of the front cover to open the cover.

4 Gently pull the TD cartridge out. See page 29, TD CARTRIDGE REPLACEMENT.

5 Remove the copy paper from the paper tray. To remove the paper, see page 35, Misfeed in the paper tray.

6 Remove the paper tray from the machine.

7 Gently push the paper output tray back into the machine until it stops.

8 Attach to the left side of the machine the screw that has been saved. See page 3, SET UP.

When shipping the machine, the screw must be reinstalled to prevent shipping damage. This screw will secure the scanning head. If the power has been turned off while an original was being scanned, the scanning head is not at the left end position. In this case, turn on the machine and then turn it off after checking the head is at the left end position.

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9 Close the front cover.

10 Attach the packing materials and tape which were removed during installation of the machine See page 3, SET UP.

11 Pack the machine into the carton.

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15. QUICK REFERENCE

Quick reference

This page summarizes the operations you can perform with this unit. For detailed information about each operation, refer to the appropriate section of this manual.

FAX

Set RESOLUTION/CONTRAST

Normal Broadcasting
BROADCAST → Enter Speed Dial number / Press Rapid keys → FAX START

Using Group Key
Press GROUP key

TRANSMITTING DOCUMENTS

Set RESOLUTION CONTRAST MEMORY

Direct Keypad Dialing
Dial (press NUM keys)
→ FAX START

Rapid Key Dialing
Press Rapid key

Speed Dialing
SPEED/SEARCH
→ Enter Speed Dial number
→ FAX START

Normal Dialing
SPEAKER Dial
(Press NUM keys)
→ Wait for reception tone
→ FAX START

Redialing
REDIAL
→ Wait for reception tone
→ FAX START

POLLING OTHERS

Set Rapid 20 key as polling key
(FUNCTION key
→ 3
→ 4
→ 1 STOP
→ STOP)
And set RESOLUTION/CONTRAST

Direct Keypad Dialing
Dial (press NUM keys)
→ POLLING (Rapid 20)

Speed Dialing
SPEED
→ Enter Speed Dial number
→ POLLING (Rapid 20)

Normal Dialing
SPEAKER
→ Dial (Press NUM keys)
→ Wait for reception tone
→ POLLING (Rapid 20)

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FUNCTION MODE

STEP 1 Press **FUNCTION** key

STEP 2 Press the menu number from the list below

STEP 3 Press the option number from the list below

	∇	∇
1. TIMER MODE	1. OPERATION SET (SEND/POLLING)	2. OPERATION CLEAR
2. LISTING MODE	1. TRANSMISSION ACTIVITY REPORT 3. TIMER LIST 5. OPTION SETTING LIST 7. ANTI JUNK FAX NUMBER LIST	2. RECEPTIONS ACTIVITY REPORT 4. FAX NUMBER LIST 6. GROUP LIST
3. ENTRY MODE	1. FAX NUMBER MODE (SET/CLEAR) 3. OWN NUMBER SET 5. AUTO SUMMER TIME	2. DATE & TIME SET 4. POLLING FUNCTION
4. OPTION SETTING	01. FINE RESOLUTION PRIORITY 03. NUMBER OF RINGS MANUAL RECEPTION 05. TRANSACTION REPORT 07. RECALL TIMES 09. FAX REMOTE NUMBER 11. FAX SIGNAL RECEIVE 13. RECEIVE REDUCTION 15. BEEP VOLUME 17. INCOMING RING VOLUME 19. BATCH INDEXING 21. LANGUAGE SETTING	02. NUMBER OF RINGS AUTO RECEPTION 04. AUTO LISTING 06. BROADCAST LIST 08. RECALL INTERVAL 10. REMOTE RECEPTION 12. AUTO COVER SHEET 14. BEEP LENGTH 16. KEY BEEPS 18. PBX SETTING 20. REVERSE SENDING
5. GROUP ENTRY MODE	1. GROUP SET MODE	2. GROUP CLEAR MODE
6. ANTI JUNK FAX MODE	1. ANTI JUNK SELECT (ON/OFF)	2. JUNK FAX NUMBER MODE (SET/CLEAR)
7. COVER SHEET MODE	1. COVER SHEET ON	2. COVER SHEET OFF
8. ANSWERING MACHINE MODE	1. QUIET DETECT TIME	2. SELECT AUTO RECEIVE (ON/OFF)
9. MEMORY POLL SET	1. 1 TIME	2. REPEAT
0. RX DATA TRANSFER	1. DATA TRANSFER	2. FAX NUMBER

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16. GLOSSARY

Glossary

A.M. mode:
When set to A.M. (Answering Machine) mode, the machine directs all incoming calls to an answering machine connected to the same line.

Anti Junk Fax:
A faxing feature that enables the user to program up to ten fax numbers from which he/she does not want to receive faxes.

Automatic Dialing:
A faxing feature by which the machine will automatically dial a user-programmed number with the press of one or more keys. See Rapid Key Dialing and Speed Dialing.

AUTO mode:
When set to AUTO mode, the machine receives faxes automatically.

Broadcasting:
A form of transmitting that allows a fax to be sent to multiple fax machine locations.

Chain Dialing:
A form of dialing that allows the user to dial a long number (up to 50 digits in length) with a combination of Rapid keys, Speed Dial numbers, or Rapid keys and manually entered numbers.

Contrast:
The degree of difference between dark and light areas of a printed, faxed, or scanned original.

dpi (dots per inch):
A standardized machine of measurement used for the resolution of a scanned or printed image.

Group Keys:
The term for multiple Rapid keys that have been programmed as a group of fax numbers.

MANUAL mode:
When the machine is set to MANUAL mode, all calls must be answered manually by pressing the SPEAKER key, or by lifting the handset of an external phone on the same telephone line.

Polling:
A faxing function that allows the user to request a transmission from another fax machine. In effect, the receiving fax machine dials the transmitting fax machine and activates the transmission.

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Rapid Key Dialing:
A form of Automatic Dialing by which only a single Fax number programmed key (a Rapid key) has to be pressed in order to dial a number.

Receive Reduce:
A faxing function that automatically scales received faxes to the size of the paper loaded in the machine.

Reception mode:
The setting that controls how the machine responds to incoming calls. See A.M. mode, AUTO mode, and MANUAL mode.

Remote Reception:
A faxing function by which fax reception can be activated from an extension telephone by entering a one-digit Fax Remote Number followed by ✳✳.

Resolution:
The amount of space between lines of a printed, faxed, or scanned original. Generally, the higher the resolution, the higher the quality of the original or image.

Speed Dialing:
A form of Automatic Dialing done by pressing the SPEED/SEARCH key, and then entering a programmed 2-digit Speed Dial number.

Transmission Reservation:
A faxing function that enables the user to load a fax and enter the receiving fax number while the machine is in use. The fax is sent as soon as the machine has finished the previous job.

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SHARP

Data Issued: September.19,1997

MSDS No.P-00081

MATERIAL SAFETY DATA SHEET

Section 1. Product Identification

Product: FO- 36DC (Black Toner)

Section 2. Supplier's Name and Address

Sharp Corporation
22-22 Nagaike-cho, Abeno-ku, Osaka, Japan
Local suppliers are listed below. Please contact the nearest supplier for additional information.

(Country)	(Name and Telephone Number)
U.S.A	Sharp Electronics Corporation Telephone number for information : 1-800-237-4277 Emergency telephone number : 1-800-255-3924
Canada	Sharp Electronics of Canada Ltd. Telephone number for information : 905-890-2100 Emergency telephone number : 1-800-255-3924
United Kingdom	Sharp Electronics (U.K.) Ltd. Telephone number for information : 01923-474013

Section 3. Ingredients

Ingredients	CAS No.	Proportion	OSHA PEL	ACGIH TLV	Other Limits
Carbon black	1333-86-4	4.0%	3.5mg/m^3	3.5mg/m^3	None
Silica	68909-20-6	1.0%	80.0mg/m^3	6.0mg/m^3	None
Iron oxide	1317-61-9	1.0%	5.0mg/m^3	10.0mg/m^3	None
Styrene-Acrylate copolymer	25767-47-9	90.5%	Not listed	Not listed	None
Organic pigment mixture	1333-86-4	0.5%	Not listed	Not listed	None
	109125-51-1 109125-50-0 84179-66-8		(total for the pigment mixture)		
Polypropylene	25085-53-4	1.5%	Not listed	Not listed	None
Polyethylene	9002-88-4	1.5%	Not listed	Not listed	None

Section 4. Hazardous Identification (Emergency Overview)

Toner is a fine, black powder possessing no immediate hazard. There are no anticipated carcinogenic effects from exposure based on animal tests performed using toner. When used as intended according to instructions, studies do not indicate any symptoms of fibrosis will occur.

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Section 5. Health Hazard Data

Route(s) of Entry :	Inhalation?	Skin?	Ingestion?
	Yes	No	Possible but very unusual.

Health Hazards : Acute oral toxicity—LD50 of this toner is over 2,000mg/kg.
Mutagenicity—The result of Ames test is negative.

Carcinogenicity : In 1996 the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This classification is given to chemicals for which there is inadequate human evidence, but sufficient animal evidence on which to base an opinion of carcinogenicity. The classification is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats did not show any association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

Chronic Effect : In a study in rats of chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16mg/m^3) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m^3) exposure group, but no pulmonary change was reported in the lowest (1mg/m^3) exposure group, the most relevant level to potential human exposures.

Signs and Symptoms of Exposure : Minimal irritation to respiratory tract may occur as with exposure to any non-toxic dust.

Medical Conditions Generally Aggravated by Exposure : None

Emergency and First Aid Procedures :

Inhalation ; Remove to fresh air. If effects occur, consult medical personnel.
Eye ; In case of contact, immediately flush eyes with water for 15 minutes.

Section 6. Physical Chemical Characteristics

Boiling/Melting Point	: Not applicable	**Specific Gravity**	: 1.1
Vapor Pressure	: Not applicable	**Solubility in Water**	: Negligible
Vapor Density	: Not applicable	**PH**	: Not applicable
Evaporation Rate	: Not applicable	**Viscosity**	: Not applicable
Appearance	: Fine powder	**Color**	: Black
Odor	: Odorless		

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Section 7. Fire and Explosion Data

Flash Point (Method Used)	:	Not applicable
Ignition Temperature	:	No data available
Flammable Limits	:	(LEL); Not applicable (UEL); Not applicable
Extinguishing Media	:	CO_2, dry chemical, foam or water
Special Fire Fighting Procedure	:	None
Unusual Fire and Explosion Hazard	:	This material has no unusual fire or explosion hazards.
Sensitivity to Mechanical Impact	:	None
Sensitivity to Static Charge	:	None

Section 8. Reactivity Data

Stability	: Stable
Incompatibility (Material to Avoid)	: None
Hazardous Decomposition	: CO and NOx
Hazardous Polymerization	: Will not occur.

Section 9. Precautions for Safe Handling and Use

Personal Protection Information (Respiratory, Eye Protection and Protective Glove): Use of a dust mask is recommended when handling a large quantity of toner or during long term exposure, as with any non-toxic dust.

Engineering Control/Ventilation	: Not required.
Work/Hygienic Practice	: Inhalation should be minimized as with any non-toxic dust.
Steps to be taken in case of Spill or Leak	: Sweep up or clean up with vacuum cleaner.
Waste Disposal Method	: Waste material may be disposed under conditions which meet all federal, state and local environmental regulations.

Section 10. Regulatory Information

NFPA Rating (U.S.A)	:	Health = 1 Flammability = 1 Reactivity = 0
WHMIS Legislation (Canada)	:	This product is not a controlled product.
Transport Information	:	This product is not a hazardous material.
UN No.	:	None allocated.

Section 11. Other Information

References : IARC (1996) IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 65, Printing Process and Printing inks, Carbon Black and Some Nitro Compounds, Lyon, pp-149-261 H. Muhle, B. Bellmann, O. Creutzenberg, C. Dasenbrock, H. Ernst, R. Kilpper, J. C. Mackenzie, P. Morrow, U. Mohr, S. Takenaka, and R. Mermelstein (1991) Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats. Fundamental and Applied Toxicology 17, pp. 280-299

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Notes

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This equipment complies with the requirements of Directives 98/13/EC, 89/336/EEC and 73/23/EEC as amended by 93/68/EEC, EN 61 000-3-2, EN 61 000-3-3.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 98/13/EWG, 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG, EN 61 000-3-2, EN 61 000-3-3.

Ce matériel répond aux exigences contenues dans les directives 98/13/CEE, 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE, EN 61 000-3-2, EN 61 000-3-3.

Dit apparaat voldoet aan de eisen van de richtlijnen 98/13/EEG, 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG, EN 61 000-3-2, EN 61 000-3-3.

Quest' apparecchio è conforme ai requisiti delle direttive 98/13/EEC, 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC, EN 61 000-3-2, EN 61 000-3-3.

Η εγκατάσταση αυτή ανταποκρίνεται στις απαιτήσεις των οδηγιών της Ευρωπαϊκής Ενωσης 98/13/ΕΟΚ, 89/336/ΕΟΚ και 73/23/ΕΟΚ, όπως οι κανονισμοί αυτοί συμπληρώθηκαν από την οδηγία 93/68/ΕΟΚ, EN 61 000-3-2, EN 61 000-3-3.

Este equipamento obedece às exigências das directivas 98/13/CEE, 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE, EN 61 000-3-2, EN 61 000-3-3.

Este aparato satisface las exigencias de las Directivas 98/13/CEE, 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE, EN 61 000-3-2, EN 61 000-3-3.

Dette udstyr overholder kravene i Direktiverne 98/13/EØF, 89/336/EØF og 73/23/EØF med senere ændringer 93/68/EØF, EN 61 000-3-2, EN 61 000-3-3.

Tämä laite noudattaa direktiiveissä 98/13/EEC, 89/336/EEC ja 73/23/EEC säädettyjä vaatimuksia ja niihin direktiivissä 93/68/EEC tehtyjä tarkistuksia, EN 61 000-3-2, EN 61 000-3-3.

Dette utstyret tilfredsstiller kravene i direktivene 98/13/ECC, 89/336/EEC og 73/23/EEC med endringer i 93/68/EEC, EN 61 000-3-2, EN 61 000-3-3.

Denna utrustning uppfyller kraven enligt direktiv 98/13/EEC, 89/336/EEC och 73/23/EEC enligt tillägget 93/68/EEC, EN 61 000-3-2, EN 61 000-3-3.

Required in Appendix ZB of BS 7002 (En 60 950) — United Kingdom

MAINS PLUG WIRING INSTRUCTIONS

The mains lead of this equipment is already fitted with a mains plug which is either a non-rewireable (moulded) or a rewireable type. Should the fuse need to be replaced, a BSI or ASTA approved fuse to BS1362 marked ♡ or ◈ and of the same rating as the one removed from the plug must be used. Always refit the fuse cover after replacing the fuse on the moulded plug. Never use the plug without the fuse cover fitted.

In the unlikely event of the socket outlet in your home not being compatible with the plug supplied either cut-off the moulded plug (if this type is fitted) or remove by undoing the screws if a rewireable plug is fitted and fit an appropriate type observing the wiring code below.

DANGER: The fuse should be removed from the cut-off plug and the plug destroyed immediately and disposed of in a safe manner.

Under no circumstances should the cut-off plug be inserted elaswhere into a 13A socket outlet as a serious electric shock may occur.

To fit an appropriate plug to the mains lead, follow the instructions below:

IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:

GREEN-AND-YELLOW:	**Earth**
BLUE:	**Neutral**
BROWN:	**Live**

As the colours of the wires in this mains lead may not correspond with coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured **GREEN-AND YELLOW** must be connected to the terminal in the plug which is marked with the letter **E**, or by the safety earth symbol ⏚, or coloured green or green-and-yellow.

The wire which is coloured **BLUE** must be connected to the terminal which is marked with the letter **N** or coloured black.

The wire which is coloured **BROWN** must be connected to the terminal which is marked with the letter **L** or coloured red.

If you have any doubt, consult a qualified electrician.

WARNING: THIS APPARATUS MUST BE EARTHED.

This equipment is not designed for making emergency telephony calls when the power fails. Alternative arrangements should be made for access to emergency services.

SHARP®

THE IDEAS COMPANY

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